

Councils challenge DES numbers projection

by Peter David

Local authorities are to advise the Government not to plan additional buildings or staff to accommodate more students in higher education than the 560,000 already envisaged for 1981. At meetings yesterday the local government associations were told by their officers that the "central projection" of student numbers in the DES discussion paper was almost certainly too high.

A document submitted for discussion by the education committees of the Association of Metropolitan Authorities and the Association of County Councils adds: "We incline towards the low projection and think that the balance of probability lies somewhere between that and the central projection."

"In other words it is possible that, at their peak, numbers could rise above the 560,000 for which provision is to be made by 1981-82 but that given no change in the pattern and composition of the student body, they would fall significantly below that figure by the mid-1990s."

It would clearly be unwise, the document goes on, to plan for significant additions to the 1981 stock of buildings, or to increase staff numbers in proportion to peak student demand, since this could be followed by redundancies once the peak passes.

"Attempts should be made, in

discussion with the institutions and the teachers' organizations, to secure agreement to work for the peak period, if in the event it proves necessary, at student-staff ratio levels which might, in normal circumstances, be regarded as less than reasonable.

"Such agreement would no doubt depend, in any case, on assurances about steps to be taken to minimize redundancies when the downturn occurred."

The local authorities reject the notion of two-year degrees and deferred entry into higher education as disguised departures from the Robbins principle of access. But a strictly voluntary system of deferring entry "might be pursued with advantage."

Model E is firmly supported by the local authority document. Resources already committed to higher education will be available, when peak student demand ends, to meet "latent demands" for higher and recurrent education.

To encourage this latent demand, says the document, the extension of mandatory grants and the removal of the parental contribution to grants ought to be considered.

The local authorities warn against concentrating any expansion to meet the peak, and any subsequent contraction, on the public sector of higher education. But they point out that polytechnics and colleges are particularly well-equipped to contribute to the sort of developments outlined in model E.

Applied research strategy proposed

by Robin McKie
Science Correspondent

A national strategy for selecting research projects best suited for Britain's economic needs was proposed by Lord Peart, chairman of the Advisory Council for Applied Research and Development, this week. Such a move would involve strong links between the research laboratories of private industry, the research associations, Government centres and the universities, he believed.

Lord Peart said it was vital that applied research was channelled into areas best suited to world markets. This was done in Japan and the results could be seen in the high streets of almost every country in Western Europe and North America.

"We still concentrate heavily on aerospace and nuclear energy research and development. Are these in fact the export winners

and wealth creators? Or would we do better in telecommunications, agricultural machinery, food processing plants, chemical plants, and so on?" he asked.

And Lord Peart stressed that one of the most urgent problems in this area was the one posed by the rapid development of micro-electronics.

He highlighted three Government moves to meet this challenge. The first involved the development of British manufacturing bases to build integrated circuits and included the National Enterprise Board's decision to set up a new company which was hoped would capture a large slice of the world market. The Department of Industry was also considering ways of helping existing industry meet future demands.

The second, which also involved the Department of Industry, concerned ways of helping British industry take advantage of any new electronics initiative developed in this country.

And the third concerned the implications of the expected electronic revolution in the ACARD working party was also considering this matter, Lord Peart said, and its report was expected later this year.

He also referred to the Minister's decision this week to instruct the Central Policy Unit to set up a working party on the focus in Whitehall for micro-electronics. It would be expected to keep in close touch with the ACARD working party over the next few months.

Mr. Callaghan said the significance in the 1980s lay in the way in which the skills of the people were used. "I want to see the knowledge we are fully aware of the ramifications in reaching conclusions on the social and economic consequences of this technology," he added.



Her Royal Highness the Duchess of Kent, chancellor of Leeds University, conferred honorary degrees at a ceremony at the university this week. Pictured left to right (seated): Professor Reinhard Bendix, Dr. Kelvin Eldman, the chancellor, Sir Richard Graham, the pro-chancellor and Professor Philip Grier. The page is Duncan Cooke. Standing, left to right: Mr Charles Tapp, Sir Arnold Weinstock, Dr Morris Sogden, Rt Hon Richard Wood, Professor Sir John Charnley, Lord Diamond and the vice-chancellor, Lord Boyle.

CNAA critic of Teesside

Teesside Polytechnic called an academic board last week following a critical inspection of the school by the Council for National Academic Awards.

Members of the teaching staff said that during the visit, Mr. Kent, chief officer of the visit, warned the institution that the CNAA report was likely to be a "good standard" review.

Among the problems highlighted during the council's first inspection were the lack of resources and the absence of a clear plan for the future.

Mr. Kent said the CNAA report on the visit would be submitted to a full meeting of the council next month. Until then, the school was unable to comment.

Oxford relaxes entry for London children

Five Oxford colleges are to relax their entry requirements for small numbers of bright London children, the university announced last week. The move is part of a scheme to pick out the bright child and to give him the opportunity to go to Oxford, even if he fails to get a normal high "A" level grade.

Dr John Spice, an inner London Education Authority science lecturer, stressed that people would not be getting into Oxford unless they had the necessary ability.

The five colleges, St Catherine's, Lady Margaret Hall, Magdalen, Hilary and University, have agreed to offer one place in each college to a bright child who has not achieved the necessary A level grade.

Possible candidates have been on a day trip to Oxford and will be interviewed by the colleges before the usual UCAA process.

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Students seek to delay funding change

by John O'Leary
The NUS president, who takes office this week as NUS president, has written to Mr. Williams, Secretary of State for Education, asking for a postponement of discussions about a new scheme because the present scheme did not allow proper consideration of the proposals. The union had found it impossible to consult members in an examination time and could not agree to the introduction of a new system in 1979-80.

Meetings have taken place between NUS officers and representatives of the Committee of Vice-Chancellors and Principals, and the Association of Metropolitan Authorities. Mr. Phillips, said, both had accepted the NUS view and would welcome a postponement. An AMA spokesman confirmed that the local authorities did not believe any change would be possible before 1980. The CVC also has a difficult time in meeting the present deadline.

Mr. Phillips said the union accepted the principle of public accountability and welcomed the intention of a minimum student union fee, but there were many questions to be answered before any scheme could be agreed. Any attempt to enforce the timetable proposed would lead students to feel a system was being forced on them.

He added that NUS could not refuse to accept any change, particularly since it wanted guaranteed resources for the 500 college unions which did not receive union fees as



Trevor Phillips, who takes office this week as NUS president.

a right. However, a recent briefing conference on the Department of Education and Science's proposals had revealed both the complexity of the question and the suspicion of many students.

The NUS executive decided to act for a year, rather than holding an emergency conference on October 1. At a meeting in London, the union would then be held at the union's December conference and a final decision made next Easter. In the meantime, NUS would take the initiative in forming a working party with other interested bodies to put proposals to the DES, at a time of a conference of one emergency.

● NUS membership has passed the million mark. Its 1,016,798 members, one third part-time, makes it the third biggest union in the country.

AMA flattens Oakes hopes

by Peter David
Government hopes of securing quick agreement on implementing the Oakes report on public sector higher education and setting up a "shadow" national body next year have suffered a major reverse.

At a meeting last week the education committee of the Association of Metropolitan Authorities, which represents 77 local councils including the Inner London Education Authority, decided against giving the Oakes proposals even qualified support.

The committee, which came into existence last week as a result of the local elections in May, rejected a mild resolution from local authorities accepting Oakes' proposals, expressing strong reservations.

The Labour resolution would have asked the report as "a suitable basis for reorganizing the sector" and would have called for further investigation of the possibility of inter-authority recognition of financial arrangements.

It would also have reserved local government's right to demand more resources on the national body, transferring the provisions for financial control by it and called for financial safeguards for authorities in the case of their higher education institutions.

But the Conservative majority preferred simply to "note" the Oakes proposals and to continue on back page

Polys 'more at risk than universities' from 1990s slump

by Ngaiio Crequer

A fall in student numbers would have grave effects on the polytechnics and hit them far more than universities, according to a new report by the Conference of University Administrators. Weaker institutions might find themselves in difficulty, competition will make the student consumer all-powerful, the social make-up of the student population may remain static and many may simply turn away from higher education, the report says.

This latest report from the CUA group on forecasting and university expansion, under the chairmanship of Mr Michael Shuttlecock, academic registrar of Warwick University, is much the most detailed and sophisticated enquiry into future demand for higher education yet undertaken.

The group concludes that when competition for entry to university courses increases there is a drift towards polytechnics and when competition decreases there is a drift away from comparable polytechnic courses.

"This may take on a greater significance in a period of emigration because it means that unless some central control is exerted on student choice, which in our view would advocate in the present climate, the relative decline in overall numbers and in vulnerable subjects may well be greater in AFE than in the universities."

This conclusion will be badly disputed by the Committee of Directors of Polytechnics who have argued that because of their greater commitment to vocational training the polytechnics may be more attractive than universities to students concerned about their future jobs.

Mr David Bethel, the committee's chairman, said this week: "University administrators are entitled to their views but we have looked at our figures. We would be very surprised to find that we were wildly out."

However, the CUA group argues that provided universities are prepared to tolerate a lowering of entry standards the decline in their numbers need not be so great.

MP calls for Willson inquiry

A Labour MP is to ask the Comptroller and Auditor General to investigate a reported financial settlement of at least £40,000 made by the University of London to its Principal, Dr Glenn Willson, who resigned 10 days ago.

Mr Geoffrey Edge, MP for Aldridge-Brownhills, is concerned about unofficial reports that the money was a "payoff" for Dr Willson, who will leave in September because of a difference in opinion about his future role.

The resignation was announced at a meeting of the university senate on June 21. Staff and student leaders are angry about the veil of silence which has been drawn round the event.

Major criticisms of the way the university has handled the issue were expected to be raised at a meeting yesterday convened to consider the future requirements of the university and to make recommendations.

Some members of the committee have said they want to know the precise reasons for the resignation to put an end to rumour and innuendo.

Dr Willson, aged 51, was appointed principal three years ago on a salary of the £14,000 a year. He was invited to apply for the job because of his record in administration. He is popular with staff and students.

He knew when he took the job that the role of the principal was going to be redefined as part of a major revision of university statutes.

continued on back page

CLEA talks on pay body

Local authorities met this week to agree on the constitution of a new national body to take over responsibility for bargaining on conditions of service for lecturers in the public sector.

The move is part of a long-term policy by the Council of Local Education Authorities to reduce the role of the DES in salary negotiations and unite salary and conditions bargaining in a single committee.

Because changes in the DES role on the national Burnham pay committee would require legislation, the local authorities are proposing the creation of a joint negotiating body for conditions of service which would enable local authority employers "to effect a closer relationship between conditions of service and salary negotiations."

The new body would take over all conditions of service bargaining from the Council of Local Education Authorities. Its composition would mirror the Burnham committee, except that the DES would have no formal role.

Employers would be appointed from the Association of County Councils (eight members); the Association of Metropolitan Authorities (six members) and the Welsh Joint Education Committee (one member).

The lecturers' side would be made up of 12 members of the National Association of Teachers in Further and Higher Education; two members of the Association of Principals of Colleges and one member each from the National Society for Art Education and the Association of Agricultural Education Staffs.

Among the new committee's jobs would be to hold regular negotiations on conditions of service for lecturers and ensure that all local authorities recognize agreements struck. The committee would also be called on to settle disputes between local authorities and teaching staff.

The committee's constitution would prevent it from discussing any of the pay issues which have to be dealt with under the statutory Burnham committee. But by mirroring the membership of the Burnham committee it could enable lecturers and employers to trade-off pay and conditions deals.

London revolt on redundancy

London University, after a revolt by some of its staff, will today reconsider the case of a research officer made redundant after 17 years.

The joint finance and general purposes committee of the university will reopen the case of a research officer made redundant after 17 years.

On Wednesday at the senate some members called upon the university to give Mr Kendall a job and to resist a policy of redundancy.

Senior members of the administrative and library staff said they would stop work during the senate meeting, and demonstrate with placards to show the strength of feeling.

Mr Kendall, aged 46, was made redundant last year. The research officer for which he was working was terminated due to the death of his director.

After negotiations, Goldsmiths' College offered him a one-year contract to work in a new unit, policy studies in higher education. That contract ends in August. After that, Mr Kendall will be unemployed.

Grants limitation opposed by TUC

Strong opposition to any limitation of the proposed national scheme of awards tested mandatory grants for the full-time further education students to "relevant courses" has come from the TUC today.

While welcoming the new system as a major social reform the TUC believes that it will discriminate against poorer students by limiting the award of grants to particular type of courses.

"This would mean that a serious financial restriction would be placed on the choice of courses by young people from poorer families," it says.

"To exclude A level courses, for example, would be to reinforce the present serious under-representation of working class young people in higher education."

'Voluntary' sociology exam postponed for second time

First-year sociology exams at the Polytechnic of North London have been postponed for a second time this week. In the latest instalment of a complicated saga during which students were told first that the exams were voluntary and later that they were compulsory.

The exams were originally scheduled for mid-June, but were later postponed until this week. Now they have been postponed again as the result of an emergency meeting of the department's examining board called to sort out the confusion.

Sociology students are boycotting the exams and threatened to obtain a High Court injunction unless the emergency meeting of the examining board was called. They claim that they were told in May that the exams were voluntary, and then instructed to take them this month following the personal intervention of Mr Terence Miller, the polytechnic's director.

The status of the exams has been in contention since new regulations for the course were approved by the Council for National Academic Awards this year. In May Mr Noel Parry, head of the sociology department, ruled at a meeting of the course committee that the first-year students were under no categorical requirement to take the exams, although they might want to "as a beneficial educational exercise."

But Mr Parry's interpretation has been countermanded by the director. Mr Miller claims that the regulations, which were issued to every student enrolled on the course, made it clear that first-year students would have to take an exam and write four essays for assessment.

The situation became more confused after Mr Miller was reported in the student newspapers as saying, in a type-recorded interview, that the sociology course would be "terminated" if students persisted with their boycott.

He said: "Let me put it perfectly clearly. I don't give a damn what the members of the sociology staff, however senior, say. I am in command of this polytechnic and not them."

But in a later statement this week Mr Miller denied that there was any question of the course being closed. He repeated his view that the exam regulations, explicitly required students to take the exams, but said it was up to the examining board to decide what penalties would follow a student refusal to take the exams.

At the emergency meeting of the examining board on Tuesday, members declared that any student failing to take the exam would be deemed to have failed the exams. But such failure will not be cause for excluding any student from proceeding to the second year of the course providing that he has satisfied the examiners in four essays.



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Full report next week.

Parents' contribution for review

by Alan Wood

The Government is to review the system of calculating parental contributions to students' grants. Mr. Oakes, Minister of State at the DES, said last week.

Replying to an adjournment debate called by George Cunningham, Labour MP for Islington South and Finsbury, Mr. Oakes said that successive governments had looked at the system, but it deserved another review because of anomalies concerning rents and other items.

Mr. Cunningham had complained of discrimination between parents who paid rent for their homes and parents who had a home loan and were permitted to deduct from their "relevant income" the amount of interest they paid.

He said the whole system needed a higher degree of consistency. Existing arrangements meant that parents at the lower end of the residual income scale were expected to contribute a larger proportion of their income than those at the upper end.

There was the oddity that if two children were at college or university and the parent was required to make a contribution of, for example, £500 in respect of the first, that £500 was not deductible in assessing the contribution appropriate for the second child given to the second. A fixed sum was deducted and if there were two children receiving grants, next year it would be £95.

Life insurance premiums were deductible in full and not only to 50 per cent, the rule for tax purposes. Once again that feature of the system benefited the better off.

Mr. Oakes said administration of the system was entrusted to over 100 local authorities so the regulations must be detailed and precise to ensure uniformity of treatment. The regulations must be demonstrably fair to students and their parents, wherever their personal circumstances. It was a question of achieving a balance between what was equitable and what was administratively practicable.

The arrangement whereby the

assessment of parental income for awards followed income tax practice was of long standing. There was, admittedly, an element of rough justice but that was inevitable when they were trying to maintain a system which was capable of reasonably efficient administration.

He had a good deal of sympathy with the contention that rent, like mortgage interest, should be allowed against gross income in assessing parental contributions and he appreciated the argument that there was an element of unfairness. The fact was, however, that if they were to depart from income tax practice, especially in such a major respect, they could not avoid the system which had been found over the years to produce fair results for most parents.

If they were to accept rent payments as allowable against gross income, they would soon be urged to reduce every charge, however temporary, that might open higher education to all those eligible.

It says that any change in teaching methods would impose a significant, if small cost and there is a real danger of destroying the most positive aspects of British university education.

York says the questions to be asked about the run up to the 1990s are ones of policy and objectives rather than the problem of the number of students.

Unless there were any significant changes staff would be in a position to cope with any increased demand. This is the view of a working party set up by York University to consider the DES discussion paper on "Higher Education into the 1990s".

The working party says it has argued that the materialist bulk of the 1981/84 numbers, but that universities will be more popular, York probably be in a position to give proper resources, and allowed to retain them.

Changes in the age structure of the population and the needs of the economy would make quite different demands on the education system, which would necessitate the abolition of the distinction between higher education and the rest of post-school education, the centre of its response to the discussion document.

The authors, John Pratt, Trevor Hughes, and John Travers, are highly critical of the paper because of its emphasis on demographic trends, which, they say, are bound to be inaccurate in any case because of the unpredictable factors involved. Even the modest increase in participation by 18-year-olds forecast by the Department of Education and Science would have to be a policy objective, they argue, since present indications are of a decline.

Particular criticism is levelled at projections for mature students, which are said to be inconsistent with the discussion document's view of mature students. Although the proportion of mature students is currently increasing, a reversal of this has been predicted. Planning on this basis assumes that education is for 18-year-olds and will deliberately frustrate the aspirations of mature students and some educators.

In our view policy for higher education must be derived, not from trends and projections, but from the needs and demands of students and society," say they.

If the present approach is followed, it was likely that the model was adopted there was a further setback in higher education because participation by 18-year-olds would have been reduced.

The five options suggested by the authors would allow the Government to encourage more work-related courses. However, they believe, the approach is doomed because it depends on a responsive government, which is not likely to be achieved.

However, it believes that it may be starting to turn. In 1977 the recovery of home students' admissions to engineering departments, which had begun in 1974, strengthened and they climbed to slightly over the previous highest level.

He said that for the first time since 1969 overseas student admissions for a lower proportion of total admissions, at 22 per cent. But there was no policy of actively discouraging overseas students. The total number of places was going up, he said.

Demography 'must not damage entry chances'

by Ngain Crequier

No student should be denied entry to higher education simply because he is born during a demographic "peak" - therefore, universities must stretch themselves to cope with any increased demand. This is the view of a working party set up by York University to consider the DES discussion paper on "Higher Education into the 1990s".

The university says that in the uncertainty about future numbers, there must be a willingness to give existing teaching space to the full and an acceptance of short-term expedients.

These might include a greater use of postgraduate students for teaching, the temporary appointment of newly-qualified academics, the use of retired academics, and a reduction in the total number of contact hours per student.

According to the report, it would be as disastrous to sacrifice the personal quality of higher education merely to meet the demands of a temporary peak as it would be to reduce every charge, however temporary, that might open higher education to all those eligible.

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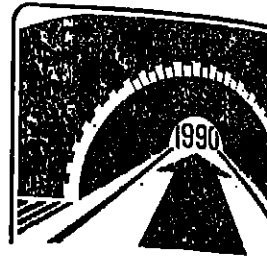
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St George and the dragon are among the subjects of an exhibition of illuminated manuscripts mounted by the British Library. Entitled "Christian Origins", the exhibition records the art and literature of ancient Christian churches in the East.

DoI sets up education liaison unit

by Ngain Crequier

A unit has been set up within the Department of Industry to try to forge closer links between industry and education. Up to £100,000 will be made available over the next three years to enable the unit, Science and Technology Regional Organisations, to fund special projects.

Mr. Leslie Buckfield, Under Secretary of State in the department, who announced the setting up of the unit this week, said the purpose of the fund would be to aid "pump-priming" and encourage greater liaison at every level.

He said: "There is every sign that we need more and more skilled engineers. To get our extra skilled manpower we need to encourage industry to move into the schools. We are trying to encourage universities to provide more places for engineers and we think this is a laudable aim. We also want companies to take a more active part in improving understanding between industry and education."

But it is still not clear how the unit will fit in with similar work being carried out by the education and employment departments and the Manpower Services Commission.

Mr. Buckfield said that since 1971 the supply of engineers had fallen substantially and the output of graduates in the field had not compensated for the loss of 100,000 engineers. Between 1969 to 1976 the proportion of overseas to home students admitted to university engineering departments rose from 7 to 23 per cent. In 1976 admissions of home students were still at a lower level than in 1968.

Mr. Buckfield said the problem was that there were not enough applied engineers and technicians in comparison with pure scientists. He said that according to figures provided by the British Association for the Advancement of Science, there are 12,000 scientists in the UK of 55 and 59, and coming up for retirement compared with 11,500 scientists in the same age bracket. Among the younger generations, though, the ratio was reversed.

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He said that for the first time since 1969 overseas student admissions for a lower proportion of total admissions, at 22 per cent. But there was no policy of actively discouraging overseas students. The total number of places was going up, he said.

The survey was undertaken by the Further Education Curriculum Review Unit to gain an impression of the types of courses further education was offering to 16 to 19 year olds who in 1977 had difficulties finding work. It was also designed to establish some characteristics of the curriculum prior to the introduction of YOP.

It is the first step towards a major project which will take in the recommendations of the Manpower Services Commission Profile Task Group and issue guidance to colleges in the autumn.

It covers the response of 162 colleges, the majority of which deal with short industrial courses, occupational selection and work preparation courses, as well as the further education input to different MSC schemes.

The survey shows that colleges offering education for Work Experience in Employers' Premises schemes are experiencing serious difficulties. The high turnover of students is creating problems of curriculum design leading to programmes of further education not integrated or closely allied to experience in the work place.

In addition, the variety of placements in WEP and the variety of individual experience make integration of the counselling and education elements difficult. Colleges were however far better able to cope with the education element of Community Industry and Job Creation Programmes.

The location of courses because of their connection with "schools" created other difficulties and many institutions felt that accommodation away from the college helped students.

They agreed that action was needed both at national and local levels to train counsellors and to use of non-traditional facilities in the workplace as well as in schools and museums. Comprehensive mapping of adult education agencies and services was encouraged and the need for co-operation at all levels stressed.

However, it was felt that because of their different needs and objectives, centralized control and administration of all the information, guidance and counselling services is not desirable. The priority of provision which is a feature in many countries was thought preferable.

One of the major areas of concern in a lengthy report from the symposium was the training of counsellors. Delegates were encouraged to have learnt the "skill in action" and they warned that professionalization taken too far could lead to the exclusion of young people who lacked formal qualifications.



St George and the dragon are among the subjects of an exhibition of illuminated manuscripts mounted by the British Library. Entitled "Christian Origins", the exhibition records the art and literature of ancient Christian churches in the East.

Work experience programmes not leading to FE study

by Patricia Santinelli

Many young people on work experience and other schemes central to the Youth Opportunities Programme are not participating in further education, a survey to be distributed next week to colleges reveals.

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The device has two advantages. It can examine several hundred thousands of cells in a few minutes, while present machines can cope with only a few hundred a day. It can also gather a wide range of information quickly, while existing methods take far longer and obtain only limited data.

Two lasers, one red and one blue, are involved in the cytofluorograph's operation. The cancer cells that are separated out in solution are passed rapidly through the beams and the amount of light absorbed or reflected by the cells is measured electronically.

Common first year courses for physics and engineering students have been proposed by the Institute of Physics. In its evidence to the Finitism committee which is inquiring into the manufacturing industry, the institute stresses that the study of physics is an essential part of the education and training of an engineer.

No real consensus on certification was reached by the survey's respondents. Many proposed that certificates such as City and Guilds and Vocational Preparation would be a suitable motivation for students, but others thought this created the danger of refusal which would only compound feeling of failure.

The institute highlights two other areas of concern. The first is the growing shortage of technical support staff because of the decline of the HNC education route. "It is by no means evident that the current reorganisation of technical education under the Technician Education Council will rectify this imbalance in England and Wales", it states.

There is also concern, says the institute, for the possible deterioration of standards in teaching methods and it urges the introduction of more four-year degree courses in physics and engineering. "It may well be that not all graduates should have longer courses but the current high standards of many graduates will not be maintained, especially in the less popular, or even time, for their views."

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APT bid for Lanchester recognition in balance

by John O'Leary

A claim by the Association of Polytechnic Teachers for recognition at Lanchester Polytechnic was being settled today by Coventry education committee. A subcommittee had recommended acceptance despite opposition by Labour councillors.

The APT claimed this week that the debate would be a formality but the National Association for Teachers in Further and Higher Education has been lobbying education committee members in an attempt to overturn acceptance. NATFHE has consistently opposed APT recognition on the grounds that it has no voice in salary negotiations and could cause disruption in its talks.

Lanchester was one of the polytechnics where a ballot carried out by the Advisory, Conciliation and Arbitration Service produced a result favourable to the APT. The union claims 40 per cent membership among the academic staff there and more than half of those participating in the ACAS ballot chose it as the body they would choose to represent them in local negotiations.

A subsequent ballot commissioned by Lanchester APT under the auspices of the Electoral Reform Society showed that only 27 full-time members of staff out of 309 replying were opposed to recognition of the association.

Mr. Ronald Adams, APT secretary at Lanchester, said it was likely that recognition in Coventry would trigger off similar action at a number of other polytechnics. Brighton, Portsmouth, Trent, Bristol, Hatfield and Oxford were thought the most likely institutions for successful APT claims. Oak, Kilkenny education authority, which includes Huddersfield Polytechnic, recognizes the association at present.

A NATFHE spokesman disagreed that today's decision had any wider significance. He said that rejection of the APT playing a formal role in national negotiations and its status therefore did not warrant further consultation than it already received in Coventry and elsewhere.

However, the APT, in its request for recognition, said that rejection of this latest application would undoubtedly be bid for industrial relations since disaffected employees were unproductive.

The boycott imposed by the British Association of Social Workers on new social work students from the London School of Economics and Abernethy University has been condemned as irresponsible by the National Union of Students.

Students claim that the boycott, which followed the appointment of professors without social work training to social work chairs at the universities, will jeopardise the careers of present social work students at the two institutions.

Mr. Jim Cook, convenor of the NUS social and community work education and training working party, said this week that senior social workers would be likely to discriminate against students from Aberdeen and the LSE when considering field placements.

"We believe that BASW has acted irresponsibly in taking this action. No attempt was made to consult students in this matter, and BASW seems determined to ignore the effects this may have on the students who have been unwillingly involved in this dispute," he said.

"BASW does not have a monopoly of wisdom to dictate college appointments policies, nor to determine what is 'credible' social work training. BASW has clearly ridden roughshod over colleges, students, teaching staff, trade unions and the Central Council for Education and Training in Social Work, with seemingly little regard, or even time, for their views."

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Physicists call for joint study with engineers

by Robin McKie

Common first year courses for physics and engineering students have been proposed by the Institute of Physics. In its evidence to the Finitism committee which is inquiring into the manufacturing industry, the institute stresses that the study of physics is an essential part of the education and training of an engineer.

No real consensus on certification was reached by the survey's respondents. Many proposed that certificates such as City and Guilds and Vocational Preparation would be a suitable motivation for students, but others thought this created the danger of refusal which would only compound feeling of failure.

The institute highlights two other areas of concern. The first is the growing shortage of technical support staff because of the decline of the HNC education route. "It is by no means evident that the current reorganisation of technical education under the Technician Education Council will rectify this imbalance in England and Wales", it states.

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Elasticity key for graduate job-hunters

New graduates are still in demand and seem to fare much better than other sectors of the community, according to university careers staff at Reading and Aberystwyth.

Both Reading and the University College of Wales at Aberystwyth report the difficulties faced by graduates but indicate a high degree of elasticity in both demand and expectation.

At Aberystwyth students have asked for advice on becoming a business shop manager, running a playgroup, employment as a generalist, how to get a job in Holland, and on a farm in Eire. One found a job as a trainee tourist guide in the Galapagos Islands.

The university comments that the articulate, enterprising, and ambitious student would have a number of offers from which to choose: the graduate lacking incentive, interest in different types of work and the would-be to impress at an interview would have to take up temporary employment.

Students reading non-vocational subjects at universities remote from major centres of population needed a period of adjustment after graduation. Of the 282 arts graduates in 1977 at Aberystwyth only 194 found permanent posts whereas 194 undertook further study or temporary work.

Aberystwyth says that the absence of 0 level mathematics is becoming a definite handicap in the job hunt. It also reports that some local education authorities are refusing to give grants to law graduates to attend Part II courses.

At Reading demand for graduates from industry and commerce held up, and in many cases no particular discipline was specified.

This was of help to arts and social science graduates who felt the effect of the contraction in the public service sector.

Some computeres reported difficulties in recruiting able specialists in engineering, mathematics, and the physical sciences.

Reading also reports that some smaller firms entered the graduate market for the first time. Medium-sized industrial concerns, in many cases, increased their overall graduate intake and recruited from a wider range of students.

Applications are being invited for "Joint Programmes of Study" between institutions of higher education within the European Economic Community for the academic year 1978-79.

Courses, to be eligible for a grant, must be of at least three months' duration and planned and provided by higher education institutions in two or more member states.

Applications for grants must be received by the Institute of Education of the European Cultural Foundation, Paris, which is administering the scheme, not later than September 15.

Group demands major role in poly in-service training

by Patricia Santinelli

Strong doubts that proposals for training polytechnic teachers by leading polytechnic teachers by 1981 on the scale recommended in a recent report could be adequately implemented have come from the Standing Conference on Education Development Services in Polytechnics.

SCHEDSP argues that the recommendations for increased training made by the Advisory Committee on the Supply and Training of Teachers Sub-Committee conflict with current limitations of resources and will have adverse results on the recruitment of new teachers and the promotion of existing staff.

It is demanding a major role in establishing any formal in-service training for polytechnic teachers on the grounds that its responsibility for the current programme makes it the most effective advisory body.

SCHEDSP believes that the imposition of a uniform system of training across the whole further education

Attraction of law reduced

Increased competition for places at university and the difficulties faced by many newly qualified lawyers may be factors in determining why the number of boys leaving independent schools and entering the legal profession dropped in 1977 for the third year running.

Of 13,971 boys interviewed by the Independent Schools Careers Organisation in 1977 nearly 5 per cent of school leavers were entering the legal profession. In the previous year more than 5 per cent gave law as their intended profession.

The most radical change in choice of career was that "Agriculture, Forestry and Horticulture" became the fifth most popular. In 1975 it was ninth.

Engineering was still the most popular with more than 10 per cent interviewed wanting to go into some area of the profession.

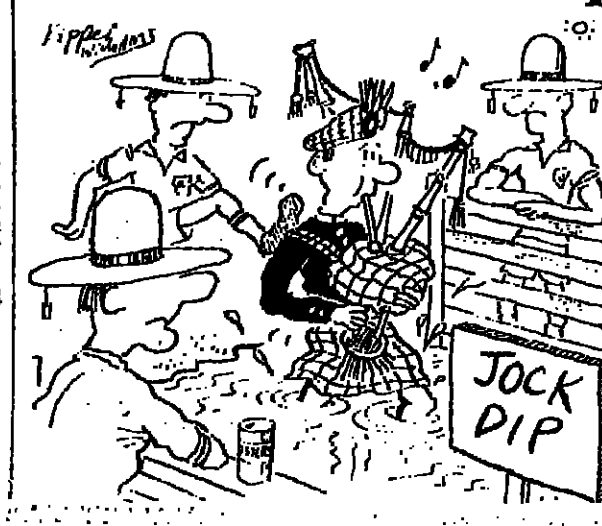
Compared with figures published by the Independent Schools Careers Organisation in previous years the

number of boys in 1977 entering, or wanting to enter, medical schools, dropped, but the study of economics and history retained popularity with more than 4 per cent giving them as their choice of study.

Girl leavers from independent schools still maintained their consensus in choice of professions, with secretarial work being the most popular. A survey of 1,197 from 55 schools indicated that more than 11 per cent wanted secretarial work, only about 7 per cent went on to train as teachers, more than 77 per cent going on to full-time further or higher education.

Fewer girls decided to go into nursing and teaching and more were venturing into science, law and hotel work. As with boys, fewer than in previous years, just over 2 per cent gave teaching as their choice of profession in 1977 compared with more than 8 per cent in 1975.

Fungals cave-in is piper's new lament



ACADEMIC DEVELOPMENTS

OU declares war on prejudice against old

by Patricia Santicelli

War on the prejudice of a society which pictures old people as "lonely bundles on park benches" is being declared by the Open University.

Its weapon is a new course "an aging population", launched this week by Mr David Knapp, Secretary of State for Health and Social Services, who described the aging population as one of the most significant social changes facing us in the next 20 years.

The interdisciplinary course funded by the DHSS begins next February and is aimed at practising professionals—doctors, social workers and nurses—and voluntary workers, as well as lay people concerned with the quality of life in later years.

Its message is the need for a change of attitude towards elderly people. Speaking about the course Ms Vida Carver, psychologist and chairman of the course team, said that they had made it with a great deal of optimism.

"Many of the so-called problems are the product of faulty and prejudiced attitudes in society which also infect older people themselves," she said.

She said that all but a small minority of people over 65 were healthy in body and mind, independent and capable of making considerable contributions to our common social life.

Energy studies 'Greater draw than OU'

by Lisa Wood

Politics, economics, conservation, resources and technology will be issues examined in a new series of energy studies to be offered by Sunderland Polytechnic.

The course, which will begin in October, will be a mix of natural and social sciences, weighted towards the former and will lead to an ordinary or honours degree. Its main themes will be energy policy, conservation, conservation, systems and modelling.

It will attempt to show that the issues involved in energy studies have wide implications, for national and international policy and individual firms and homes and the planning of local environments.

Students will examine changes in technology brought about by increasing knowledge, such as the growth of nuclear sciences from developments in nuclear physics.

They will look at the history and future of the coal industry and consider the development of wind as an energy source.

Major issues to be examined include: The choice between nuclear power and fast breeder reactors or alternative technologies with different and unknown risks; what costs are involved; and how far to support policies of conservation.

Intending students will be expected to have studied at A level. The first term will be introductory and fill in gaps in background. The rest of the year will be devoted to studies of physical and social sciences and a look at the interaction between technology and society.

The second and third years will involve deeper study, involving the social contexts of energy, nuclear and fossil fuels, energy conservation technology and project work.

For the latter, students may prepare case studies on the Windscale inquiry or look at the development of North Sea oil.

US influence on secretarial studies

American experience has been extensively drawn upon by Hull College of Higher Education which intends setting up a B.A. in secretarial studies, a qualification at present only available in this country from Strathclyde University.

The starting date and students' requirements for the course have not yet been finalized.

Teachers flock for pioneer degrees

by John O'Leary

Teachers in the South West of England have responded enthusiastically to two pioneering degree courses being offered by colleges in Devon. Both will lead to a BEd entirely through part-time study.

At the College of St Mark and St John, Plymouth, the target intake of 60 students is likely to be exceeded, while applications for the 60 places at Rolle College, Exmouth, have reached 110. It is the first time teachers in the region have had the opportunity to add the degree to their qualifications without interrupting their careers.

The initial intake for both courses in September will be from primary and middle schools, although the College of St Mark and St John hopes to offer a course for secondary school teachers in 1979. Students will attend twice a week for three years.

In each case, the course is

"school-focused", reflecting the current trend for in-service training, with the emphasis on practical, rather than strictly academic questions. The colleges aim to extend the professional competence of the teacher through analysis of everyday work.

Serving teachers have been closely involved in every stage of planning the Plymouth degree, which has been validated by the Council for National Academic Awards. Language and mathematics will be given special attention in the first course, although it is intended to cover the whole primary and middle school curriculum.

Final assessment will be based on a project, which will be undertaken in the third year, following continuous assessment of work in the first part of the course. Students will mount a teaching programme in their chosen area of the curriculum and carry out a

critical analysis of the subject. Discussions have taken place about the possibility of varying attendance patterns to accommodate students who have long distances to travel. Cornish students are worst affected, will be able to use the college's Camborne campus.

Rolle College, whose course is the first part-time degree to be validated by Exeter University, operates from four study centres serving different areas of Devon and Somerset. They will be at Barnstaple, Taunton, Torbay and Exmouth. Another centre will open in Cornwall next year.

The Rolle course will also include a school-focused degree, but, unlike St Mark and St John, there will be a final examination. The other study units, however, will be assessed by continuous assessment of work in the first part of the course. Students will mount a teaching programme in their chosen area of the curriculum and carry out a



Talking heads—experts from the BBC and Yorkshire Television were called in by Leeds Polytechnic to help in the first of a series of two-week courses for lecturers who want to learn how to set up and run a television studio. The courses are being staged by the polytechnic's educational technology unit course is scheduled for November.

Training scheme for senior finance officers

Senior finance or accounting officers are being encouraged to qualify for membership of the Chartered Institute of Public Finance and Accountancy through a special education and training scheme beginning at Liverpool Polytechnic in September.

The short-term scheme, which has been specially devised for senior officers who are qualified accountants or other professional accountancy bodies, will operate for at least two years.

Senior officers admitted to the scheme will be exempt from the foundation stage, the PL examination and the formal training requirements specified in the regulations.

They will take a conversion examination based on an abridged P2 syllabus. No change is, however, being made in the final qualification P3 examination.

The polytechnic's senior officers' course will involve one week's attendance at college in each of four terms from September until December, 1979. Periods between attendance will be covered by directed private study organized by the college.

The scheme is to be followed in September, 1979, by longer-term arrangements not only in the polytechnic but other colleges depending on demand.

'Alternative' entry is extended

A general education foundation course run by two London colleges, which offers young people an alternative route to higher education, is to be extended to part-timers.

The course, developed jointly by the East Ham College of Technology and the North East London Polytechnic, is an alternative to A levels for those who have left school but want to improve their prospects.

It will now be extended for part-timers who are either working or have other commitments. The

Chance for modern linguists to look at international affairs

The Polytechnic of the South Bank in London has started a four-year full-time course which will train linguists with an interest in international affairs.

The BA (Hons) in modern languages with international studies, starts in September and intends to provide an integrated programme in language studies, politics and economics, including special studies of international organizations and business.

Students will study two foreign languages from French, German or Spanish. One will require an A-level qualification and the second will normally require no previous knowledge.

Great emphasis is to be placed on the social science components and a first year international history course has been designed for students with no previous experience of the subject.

After four terms in London students will have two sessions of six months academic attachment abroad where there are links with

international organizations and firms. The new course will build upon existing academic links with institutions in France, Germany and Spain.

The polytechnic views this new course as an updating of the modern languages BA (Hons) degree. With study in economics and politics, there will also be real specialization at the beginning of the ninth term when honours students can take a related language option and one of the three international studies special subjects: European integration, international business or human rights.

The choice between graduation with or without honours will be made at the beginning of the ninth term after which students specialize in either politics or economics.

Students applying for the course will normally require GCE passes in five subjects, two at 'A' level of which one must be in a appropriate language.

On with the dance, drama...

A variety of talents available from the recent merger of the college of education and the polytechnic at Leicester have combined to produce a novel degree course.

Students taking the full-time BA course in performing arts, at Leicester Polytechnic, will be able to choose between dance, drama, music and arts administration for their speciality. The course, now validated by the Council for National Academic Awards, is to be launched in September.

Practical and theoretical study will be included and a series of performance workshops will allow students of the different arts to produce joint work. The course has strong links with local performance organizations and with national bodies such as the Arts Council and the BBC.

It is hoped to undertake regional tours when practicable to supply

ment the public performances which are to be put on at the Haymarket and Phoenix theatres.

All students will learn something of the financial and managerial background to the arts in order to widen their job opportunities on completing the course. Those specializing in arts administration will be able to work closely with the East Midlands Arts Association, as well as taking responsibility for the student productions.

Many of the staff supervising the new degree came from the former College of Education at Scrabble, Leicester, where dance, drama and music formed part of the training programme. The course leader, Mr Noel Wills, was in the polytechnic's school of graphic design. The degree aims to combine the strengths of both departments.

North American News

Joint effort to discover truth about ALE

WASHINGTON

Many scientists regard fluorocarbons—gases used as aerosol propellants and refrigerants—as a serious threat to the earth's atmosphere. The danger lies in the possibility of destroying the ozone layer in the stratosphere.

Until now, the controversy has raged without any systematic long-term monitoring of the fluorocarbon levels in the atmosphere.

This summer, however, a global network of monitoring stations is coming into operation. Its Anglo-American operators hope it will be giving reliable information about long-term trends within three years.

The network was the idea of three members of the meteorological department at Massachusetts Institute of Technology—Drs Fred Ayls, Derek Cunnold and Ronald Pielke—who are well known for their mathematical models of the atmosphere. They have been involved in the ozone depletion controversy from the start.

The MIT team is working with two British scientists, Drs Jim Lovelock and Peter Simmonds, who will be in charge of the two northern hemisphere monitoring stations, in Adirondack, Ireland, and on the Caribbean island of Barbados. In the southern hemisphere, stations on Samoa and Tasmania will be managed by Dr Reinhold Rasmussen of the Oregon Graduate Centre.

Dr Lovelock, who has been a visiting professor at Reading University since 1967, invented the instrument, "the electron capture gas chromatograph", which is being used to monitor the levels of fluorocarbon.

Dr Simmonds, a geochemist, is also an independent consultant, with an honorary research fellowship at Bristol University. He helped NASA build the instruments with which the Viking spacecraft analysed the surface of Mars.

The programme, titled "Atmospheric Lifetime Experiment (ALE)", indicates its objectives: "To know how long the molecules last. That will enable them to determine whether all the fluorocarbons released into the air are eventually destroyed in the upper atmosphere, or whether there is some other 'sink' acting to deplete them."

In order to calculate lifetimes, the scientists need figures for the world production and use of fluorocarbons—which is where Alex Spontoni comes in.

The network is being financed to the tune of about \$350,000 a year by the Manufacturing Chemists Association, an international trade association, and a number of other international fluorocarbon panels.

How to deal with a highly sensitive problem...

from our correspondent

WASHINGTON

Some university administrators have been clarifying their procedure for dealing with the highly sensitive subject of "sexual harassment".

In the academic context this really refers to psychological pressure of the "if you sleep with me, I'll give you a good grade, if you don't, you'll fail my course" type of thing, rather than outright physical assault.

The problem came to the fore last year when five female students and a male professor filed a lawsuit against Yale University, alleging sexual harassment of women students by faculty members.

The university vigorously denied the charges and a magistrate dismissed the cases of five of the plaintiffs.

Clive Cookson, North American Correspondent, The Times Higher Education Supplement, National Press Building, Room 541, Washington DC 20036. Tel: (202) 638 6765.

National institute proposed

WASHINGTON

The elusive goal of a national education policy for Canada is revived in a new report prepared for the Association of Universities and Colleges of Canada.

The report on "The Role of the University in Canada" was prepared by a six-member task force of academics and university administrators. It starts with some philosophical observations about the nature and purpose of universities and goes on to make a series of thirty recommendations covering four aspects of post-secondary education: admissions, policies, relationships between university courses and careers, continuing education, and the relative roles of universities and community colleges.

It is the final chapter entitled "a national policy" which is likely to attract most attention in Canada at a time when the long-term future of the Canadian nation is in doubt. The task force takes up the dominant theme of the 1976 OECD review of Canadian education—the need for national co-ordination, which has been virtually non-existent since the 1857 British North America Act gave the provinces "exclusive" rights over education.

Many Canadians said the (mainly European) OECD examiners did not understand the nature of the Canadian Federation, and there has been virtually no development of national education policies since 1976.

The 10-year-old Council of Ministers of Education, composed of the provincial and territorial education and/or Higher Education and a permanent staff of 25 in Toronto, has somewhat increased the scope of its activities, but it is a consultative rather than decision-making body. The federal government's role has remained minimal.

"In the present political climate the chances of the federal government playing any kind of coordinating role or even contributing to the Council of Ministers' sense of mission are not very great," the AUC report states.

It expresses hope that the council of ministers may "develop into an agency that will be concerned with national goals and national standards".

The task force does not think the council is capable of carrying out its role. It therefore recommends the establishment of a National Institute of Higher Education, funded by the federal and provincial governments, to monitor higher education throughout the country, conduct research, develop a code of ethics, and share the same spirit of inquiry into the human condition.

Other recommendations on national policy include:

- Establishment of a national scholarship programme to allow undergraduates to spend a year studying in another province. This

Clive Cookson examines an important policy study of education in Canada

would give them insight into the problems of different areas and thus contribute to national unity.

A study of the educational inequalities that exist in Canada because students in some provinces are denied the opportunity to study at professional schools that exist only in other parts of the country.

Procedures to make it much easier for students to transfer academic credit between institutions in different provinces. The report repeats the "lamentable" conclusion of the 1975 Symons Commission on Canadian Studies—that it is easier to transfer credit between courses in the European Common Market than between provinces in Canada.

"If the country is to remain united, everything should be done to facilitate the movement of students, who will soon be working adults, to study in other parts of the country," says the AUC report.

Elimination of unnecessary and expensive duplication of professional programmes (this is already done to some extent by the Maritime Provinces Higher Education Commission).

The report deliberately omits from its definition of a university what it says has been the conventional wisdom of the past two decades: "that higher education was not only a major instrument for effecting economic growth but also the panacea for excellence to cure such basic problems as poverty and unemployment."

"The real mission of the university is not an economic one but a civilizing one," the report states. And that means "the raising of university teaching programmes and be the humanities, the natural sciences and the social sciences."

"Within the arts and sciences, the humanities may appear the least utilitarian but are in fact the most central to the work of the university."

It is no accident that, of all the activities of a university, those which are the first to be distorted or suppressed by totalitarian regimes are those which we call the humanities: history, literature and philosophy and the social sciences, which share the same spirit of inquiry into the human condition.

In a later section the report restates its belief in the humanities: "Humanists have proved over a long period of time that their education has been a sound training for effective work in an astonishing

range of occupations. A disciplined mind trained in the humanities can usefully function in business or the public service or anywhere else for that matter."

The task force says universities must make clear to students that Bachelor's degrees in the liberal arts and sciences "do not of themselves qualify a graduate for any particular form of employment. Still less guarantee any particular form of employment."

Pure science is seen as an essential ingredient of liberal education: "indeed the true spirit of free science, infecting the scientifically based professions, soaked with the humane traditions of the university, and true to itself as the university it should be, offers perhaps the principal hope for our physical survival."

The task force believes "there cannot be too many people pursuing studies in the liberal arts and sciences and that career opportunities are not the *raison d'être* of these studies at an undergraduate level."

Professional schools and faculties are seen "surrounding the core of the university, and drawing skills in the use of language and general intellect. The survey showed that more than 54 per cent of the executives believed language skills to be deficient and 24 per cent noted deficient mathematical skills."

These dangers may be greatest in the fields of social services and communications, for which a good liberal education supplemented by a period of on the job training may indeed be the soundest preparation.

The section on graduate education emphasizes the need for the federal and provincial governments to support young postdoctoral researchers through the lean years ahead, so that by the 1980s, when student numbers start to increase again and more academic positions become available through retirement, there is not an acute shortage of academic and research manpower.

Search for recommendations are made for improving continuing education in Canada. The report is concerned about the difficulty or impossibility of completing undergraduate or postgraduate degrees in the arts and sciences, and urging institutions to consider part-time degrees as much a responsibility as full-time programmes.

The AUC and its member universities are now considering whether to adopt the report as official policy and, if so, how to implement its recommendations.

The report is the first in a series of AUC policy studies commissioned in 1976. Others, to be published in the summer and autumn, will consider funding higher education, foreign students and faculty, and international relations.

News in Brief

Businessmen's view of liberal arts

NEW YORK

Liberal arts colleges are increasingly having to justify strictly educational objectives. A report of the Conference Board, a private, non-profit business research group, says more than 41 per cent of executives think educational institutions do an inadequate or poor job of preparing students for work and 47 per cent believe they do only an adequate or fair job.

The executives assert that specialized, occupationally directed institutions do far better than other higher education units in preparing students for work. By a margin of nearly 10 to one they think four-year engineering and science colleges perform particularly well.

By several to one ratio they award high rankings to two-year colleges with vocational curricula. They rate four-year business colleges less favourably.

Liberal arts colleges are charged with doing poorly at developing skills in the use of language and general intellect. The survey showed that more than 54 per cent of the executives believed language skills to be deficient and 24 per cent noted deficient mathematical skills.

Curriculum 'needs modernizing'

OTTAWA

Academic leaders must devise "positive and creative programmes" to correct faults in the system and restore confidence in the university, says Dr Murray C Ross, president emeritus of York University, Toronto.

He advocates a modernization of the undergraduate curriculum and a university year extended from its present 25 weeks to about ten months.

He said that to prepare students more for careers, the university should provide a basic general education and offer vocational courses. Dr Ross urged that unnecessary duplication of graduate programmes be reduced by concentrating on strong departments in individual universities, for example, classics at the University of Toronto, space science at York.

Finally, he urged that "faculty members reduce the bureaucracy they have created. It is necessary to reduce the complex, cumulative machinery for decision-making which is characteristic of the universities."

Students getting on with the job

A part-time job does not hurt students' academic achievement, a University of Texas study has shown. On the contrary, it may actually help them.

Students doing "reasonable amount" of part-time work (15 or 20 hours) were found to be performing better academically than non-workers. "It seems that students who work are better able to manage their time, and, therefore, become better achievers," said Ben Stough, of the university Student Financial Aid Office.

Law repealed

Under heavy pressure from Californian universities, a key committee of the state senate has voted to repeal a controversial new law that empowered the state medical licensing board to tell medical schools exactly how to teach their students about human sexuality. The universities, private and state, saw the law as an attack on their academic freedom to work their own teaching methods.

Atlantic crossing

Dr John Brockleman, head of Manchester University's department of geriatric medicine, and a world authority on medical care of the aged, will cross the Atlantic in the autumn to become chairman of the University of Saskatchewan's new division of geriatric medicine.

Numbers fall as recession hits postgraduates

from Guy Neave

PARIS

The economic recession is beginning to hit PhD level postgraduates in France. According to the latest higher education statistics the number of third cycle students fell by 0.2 per cent last year in an unprecedented development.

The pattern among French students who reach post-graduate level has, over the past few years, been to prolong their studies in the hope that the market will pick up. The game of wait and see appears to be at an end. And the fall is more pronounced in provincial universities than in Paris.

Overall, the number of students enrolled in French universities grew slightly in 1977-78 compared to 1976-77. With some 837,776 students enrolled, this represents a growth of 2 per cent.

Particularly noteworthy, is the rise in the number of foreigners. With some 98,500 foreign enrolments, around 15 per cent of all students in French universities come from abroad.

Another feature to emerge from the figures is a marked movement away from the capital. Among first time enrolments the number of students in provincial universities rose by 5 per cent compared to last year. In Paris, however, they fell by 5.5 per cent.

Though encouraging for the government, which has long espoused a policy of student dispersal from the capital, a close perusal of the statistics shows this to be due almost entirely to a spectacular flight from the University of Paris VIII Vincennes.

Around one in five students at Vincennes do not have formal qualifications to enter university. The drop of some 24 per cent compared to the previous academic year appears to reflect the fact that the

students Vincennes seeks to attract are among the most vulnerable to the current recession.

Against this adverse grim background, certain minority subjects have shown a meteoric rise. Particularly remarkable are public administration, applied mathematics, and applied social sciences.

Among the subjects enjoying a boom are economic sciences (up 6.1 per cent) and social sciences and technology (up 7.0 per cent). Pharmacy is also doing well (up 5.0 per cent). The most marked fall has occurred in medicine (down 9.2 per cent), reflecting the government's determination to cut back on the number of students admitted to the second year in medicine. Law, regarded as one of the soft options, and humanities remain stable.

The growth in the numbers following pharmacy courses is in part a reflection on the increasing selection being introduced to medical faculties. Students failing first year medicine in France tend to opt for pharmacy as a fall-back.

This will pose grave problems for the pharmacy faculty at the University of Caen. The faculty, which has 950 students, is currently at loggerheads with the central administration over the conditions of laboratory space.

The problem is partly budgetary, partly a matter of architectural incompetence. It appears that much of the pharmacy faculty was built over the site of a disused quarry and the aged buildings have begun to shift.

The academic council has declared it can no longer ensure the safety of the buildings. Central administration, mysteriously, always, has declared that the 2,000 square metres involved are perfectly usable.

The academic council has threatened that if no satisfactory solution is found, the university will not open at the start of next academic year.

Joint protests over campus reform proposals

from Uli Schmetzer

ROME

In the first volatile reaction to Italy's proposed University Reform Law, students and teachers have agreed on a one-day strike and a one-week work-to-rule protest.

The students are angry over the erosion of their political achievements and the so-called academic professors are infuriated by stipulations that they must take a test before graduating to full professorship.

Their joint protest was not unexpected. The 51-clause proposal, tabled by the Senate Education Committee, is certain to run into a wave of controversy from many sides.

In academic and political circles there are already attempts to moderate some of the higher measures proposed. Although immediately a clause is to be brought back, academics argue that registration will still be open to all. A redistribution of the student population along the lines of the Soviet system is suggested.

In Moscow, for example, only about one in 10 students are accepted for the local university, said one professor. The rest are spread over the country—some might even be sent to Siberia—but most important, no one is denied the right to education.

In order to sift through the number of applicants, academics envisage

an written examination for uni-versity newcomers in which they have to answer three out of five questions. This will at least give the professors a way to measure their degree of literacy.

The majority of faculty professors agree that four main measures could improve Italy's chaotic tertiary education problem:

● The redistribution of scholars. The mass universities of Naples, Milan, Rome and Turin are chronically overcrowded, but provincial universities like Siena and Urbino are underpopulated.

● Redirection needs the construction of student accommodation and the speedy building of the 12 proposed new universities.

● The legal abrogation of the laurea (theology degree). This would immediately cause a huge number of people whose only objective is a degree to "legally" boost their chances of promotion and income, to abandon the campuses.

● A 70 per cent rise in tuition fees (already envisaged under a by-law of the Senate proposals), then fellowships awarded to students who deserve them.

However, the most formidable obstacles to the latest reform proposals are the teachers' unions who refuse to accept a test before graduation to full professorships. They say promotion should come with seniority.

Branching out

Segregated black universities are planning to extend their work by establishing annexes away from their main campuses and close to the white urban areas.

The University of Zululand is setting up a branch university at Port Harcourt near Durban and Fort Hare University at Alice in the Eastern Cape (the Ciskei) is doing the same in the Xhosa town of Zwelitsha near King William's Town. The branches are to cater mainly for part-time students.

Students reject university's BED overtures

from Lindsay Wright

WELLINGTON

Relationships between New Zealand's primary teachers' colleges and universities have undergone major changes as three of the six universities have developed BED courses in association with their local teachers' colleges.

Two years ago Canterbury University agreed in principle to the introduction of a BED degree programme and a joint University-Teachers' College Working Party, which took advantage of the adjacent campuses, reported back last month with preliminary proposals for the new degree.

But the student teachers have come out strongly against similar proposals just released by a joint working group in Wellington, where Victoria University and the local teachers' college are making tentative overtures to each other.

The initial suggestions follow the general pattern already established, where the four-year BED degree requires three years of study in a programme jointly developed and administered by the college and the university, augmented by a final full-time year at university.

Reservations about the need for a graduate teaching profession have been simmering among student teachers for some time, and the latest move has drawn a sharp response from Trevor Mallard, National President of the Student Teachers' Association of New Zealand.

"We do not believe that the establishment of formalized university-teacher college relationships is a desirable direction for teacher training in this country to take," says Mr Mallard.

Wellington Teachers' College student president Miss Glenda McCallum added that the academic emphasis of a BED degree is offset at the expense of other vital areas of teacher training.

The anti-intellectual backlash contrasts with the policy advocated by the primary teachers' union, the New Zealand Educational Institute. And the Association of University Teachers has called for an integrated approach from universities and teachers' colleges, to ensure that teaching should be largely a graduate profession.

Higher education leads to higher pay

from Colin Narborough

COPENHAGEN

The Danish Committee for Labour Market Research, under the Ministry of Education, has issued a report on the relationship between higher and further education, work opportunities and income.

The report, covering the period 1971-75, aims at describing the known situation rather than finding the underlying causes, but it does list various hypotheses for explaining the relationship between education and income.

One is that education improves labour productivity, providing a basis for a link with income. A second regards the educational system as a selection mechanism in which the best go furthest. It points out that both theories contain the underlying view that the income-education tie is based on inherited qualities or abilities.

A third hypothesis emphasizes the role of the environment as an indicator of how much the individual will achieve in education and in income.

But the authors underline that they seek merely to produce a neutral description of the actual picture and in no way attempt to analyse its contents.

The report is based on data from 65,000 people aged between 20 and 50.

On the relationship between educational level and employment frequency, the data shows distinctly that women with long-term education have a higher rate of participation in the labour market than women with no education or trades training.

For both men and women higher education appears primarily to give access to salaried worker or public service sectors. Both private and high degree work areas for men and women with higher education and the bulk of self-employed men with higher education are also in the service sector, often through the liberal professions.

The education-labour market relationship to emerge is that increased education yields a greatly increased proportion of salaried workers.

There is also a marked clustering of people with higher education within the public and private service sectors. There is also a powerful increase in the percentage of women working, as women's educational levels rise.

The incomes of people with higher or further education are generally 80 to 120 per cent above people without trade or professional skills.

There is a corresponding clustering between professions, occupations and level of income with high up to 70 per cent higher for employed and 50 per cent higher for salaried workers, compared with unskilled workers.

But that does not satisfy the Union of Students in Iceland. "Most people will react very strongly against the Green Paper. They will see it as a further curtailment of educational opportunity," it said.

The government complains that the prospective increase in numbers of pupils at all levels of education, reduced overall spending cannot realistically be expected.

Green Paper points to severe cutbacks at third level

from Paul McGill

DUBLIN

Fees for higher education should be doubled, a government Green Paper on the economy has suggested. College of Education students, whom the paper claims cost three times more than university students, may face even steeper rises.

Coming in the wake of a report by Professor Dale Tussling (TIES) state in 1978) proposing that the state should pay nothing for education after compulsory stage, the paper bears out recent fears that higher education is to be severely squeezed.

The document notes that the government pays 83 per cent of the bills for third level colleges and adds: "It should be kept in mind that these high levels of benefit, paid for by the taxpayers, accrue in large part to small and relatively privileged section of the community who also enjoy the prospect of future graduates, of relatively high earnings.

Consequently, it would seem equitable to increase the fees charged. Even if these were raised to twice the present level, the Exchequer would still finance about two-thirds of higher education expenditure."

The paper argues that improvement in grants "should ensure that prospective students with limited means would not be affected."

Fewer graduates since Cultural Revolution

from John Gardner

Figures giving a clear indication of the impact of the Cultural Revolution on China's production of university graduates, are given in a New China News Agency report.

It reveals that 160,000 students have graduated this year and will shortly be assigned to jobs, bringing the total number of graduates since 1949 up to "about" three million.

Before the Cultural Revolution, statistics on the number of graduate students were published annually, and showed that from 1949 to 1965 over 1,500,000 were produced. In 1964 alone, over 200,000 students graduated and 170,000 the following year.

On the assumption that the production of 170,000 graduates a year was well within the capacity of China's tertiary level institutions on the eve of the Cultural Revolution, the upheavals have resulted in a shortfall of at least 750,000 graduates.

This is a conservative estimate, as it makes no allowance for the expansion of higher education which might normally have been expected to cope with the rapid increase in China's youthful population in the past thirteen years. It is probably realistic to say that the People's Republic would have produced over a million more graduates had the Cultural Revolution not intervened.

The latest report also hints at the drop in quality of recent graduates resulting from the shortening of university courses and lowering of academic admission requirements, noting that the latest graduates had their studies "interrupted" because of the activities of the "gang of four".

Nevertheless, most of them have obtained "fairly good results", and in assigning them to jobs, the State Planning Commission has announced that priority will be given to key scientific research projects, large scale construction projects, and to the selection of post-graduates and teachers of "basic" courses in recently selected "priority" universities and colleges.

Further reports, however, indicate that China's return to conventional academic selection criteria is among long considered resentment among those who welcomed the "open door" policies of the Cultural Revolution.

Provincial radio broadcasts admitted that some people at "hankers after the paragon of a gang of four", and that the radical influence is "deep and great". These people have "hubbled" the new enrolment policies of the college and county, worker, peasant, and mental and manual, the "three major differences" which Mao Tse-tung sought to eradicate. They have suggested that the "poor at lower-middle peasants" be children previously benefited by the "positive discrimination" of the Cultural Revolution a minority to tolerate the news.

The official view is that the majority of university students continue to come from humble origins. But a report from Anhui province, claiming that 87 per cent of new students are Communist Party or Youth League members, does not, in itself, disarm the critic, who has that a "New Class" may be arising.

Bad manners and bad management played a part in the Yixian affair, but more fundamental issues in social work education lay behind the arguments. The incident pointed up one of the paradoxes in the organization of social work courses. Local authorities are the main employers of social workers, yet they also "control" the polytechnic in which many social workers are trained. The polytechnic, on the other hand, claim certain rights related to academic freedom.

Thus the burghers of Newham were aghast that one of their employees, already acting as an education welfare officer, was asked to place in the authority's own polytechnic. Social work tutors at NELC, for their part, felt entitled as the stewards of a profession and a discipline to reject a candidate they considered unsuitable for social work.

But social work's claim to be a profession and a discipline is not universally accepted. Regarded by many as an inconsequential by-product of the education system, workers are often regarded with suspicion by the academic world in which they are trained.

Intellectually, social work owes its existence to the confluence of other social science disciplines like sociology, psychology, anthropology, and social work. Practically, social work training exists because of the needs of the welfare state. It is a blend of flavour and mixed academic pedigree which weakens its claims to independent and equal status.

It is not surprising that many have recently been new chairs of social work. Aberdeen, Newcastle, Dundee and the London School of Economics have all created new professorial posts. But in two cases, Aberdeen and the London School of Economics, the chairs have gone to academics who are not social workers, and particularly not student professional associations, regard as "unqualified".

Professor Robert Pinker, the successful LSE candidate, and Mr Gerald Birchford, the new professor of social work at Aberdeen, have never practiced social work. They are, however, active in the CQSW. Their standing as scholars with an understanding of social work and therefore well able to lead social work departments, the social workers, however, believe that the appointment of "unqualified" academics is a slight on the status of social work and social workers.

Enthusiastic professors with but

How to fall between public needs and academic ambitions

More than 4,000 new students will enrol in universities and polytechnics next year to train as social workers. Most will study for the Certificate of Qualification in Social Work, the principal professional qualification without which social workers can get on but progress beyond a salary level of just over £3,000. The great majority will find employment in the social services department of a local authority.

On the face of it, therefore, social work education ought to be a relatively uncomplicated business. There is only that one main qualification, all social workers need it and most social workers end up with the same kind of employer. In practice, social work education is fertile with controversy.

The most infamous controversy is the continuing and ugly saga of the Newham education welfare officer, Mr Suresh Vyas, who was turned down when he applied to a social work course at North East London Polytechnic. Newham happened to be one of three local authorities running the polytechnic, and threatened to close the social work course down unless their favoured son was admitted. The polytechnic complied, staff and students revolted, and a High Court judge was called in to settle the dispute.

Bad manners and bad management played a part in the Vyas affair, but more fundamental issues in social work education lay behind the arguments. The incident pointed up one of the paradoxes in the organization of social work courses. Local authorities are the main employers of social workers, yet they also "control" the polytechnic in which many social workers are trained. The polytechnic, on the other hand, claim certain rights related to academic freedom.

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Enthusiastic professors with but

What type of social worker?

from Peter David

If radical social workers are to be believed, social work education already has a "Black Paper" of its own. A discussion paper issued by the CCETSW last summer ignited a blaze of controversy among social work teachers and practitioners.

"Consultative document three" was written by Roy Wright, an assistant director at CCETSW. But the document makes it clear that although the council is eager to clarify the role of social work courses, the recommendations of the document do not represent official thinking.

Explaining the reasons for issuing the document, Miss Priscilla Young, the council's director, says in an introduction that there is still no generally agreed view about the type of social worker CQSW courses are supposed to produce. "Although diversity is desirable in the style and detail of qualifying courses, a more clearly defined and explicit identity of purpose is needed."

She adds: "Employers of social workers tend to have expectations of training which are job-specific; social workers themselves seem to hold a variety of expectations of their training, and those who teach, whether in universities, colleges, or in practice, have their own, sometimes idiosyncratic, objectives."

But critics of the paper believe that Mr Wright's recommendations are themselves idiosyncratic. A particularly controversial section of the paper argues that sociology has exerted too great an influence on social work training.

"This influence has helped to

The council that holds the ring

Directors of Polytechnics, the Local Government Training Board, the National Union of Students and a host of others.

But that is not all. Eight members are appointed by ministers, and meetings of the council are often attended by a gaggle of senior civil service "assessors" culled variously from the Department of Health and Social Security, the Home Office, the DES and the Social Security, the Home Office, the DES and the Social Security.

When social work tutors at North East London Polytechnic became locked in an irresolvable dispute with the London Borough of Newham, it was the CCETSW that eventually took the issue to the High Court for resolution.

Yet on the face of it the council is a bureaucratic oddity, ill-equipped to act as referee and arbiter in such a wide variety of arguments. Although it is a statutory body, and its funds are channelled through the Department of Health and Social Security, it is supposedly independent. Its formal job is to promote education and training for social work, and it has responsibility for approving courses and awarding qualifications. Its real job is to hold the ring between professional social workers, those who employ them, and the polytechnics and universities which train them.

At its centre is a sprawling executive council with more than 60 members drawn from employing bodies, professional associations and educational institutions. Its chairman, Sir Norman Christopher, is appointed by the Privy Council.

Both the methods of the council and its diffuse membership make the complex relationships in the social work world a list of bodies which nominate members ready like a catalogue of pressure groups. They include the local authority associations, the National Association of Teachers in Further and Higher Education, the British Association of Social Work, the British Medical Association, the Association of Lecturers in Social Work, Education, the Council for the Academic Awards, the Committee of the National Academic Awards, the Committee of



Later in the document Mr Wright claims that in many cases social work courses are giving increasing emphasis to broad generalist education in the social sciences at the expense of real skills. The purpose of CQSW courses, he says, is to produce social workers with appropriate knowledge and skills, and a coherent and consistent system of shared professional values."

Social workers have a responsibility to help their clients change and change their circumstances, Mr Wright says. But he adds: "Action to change social policy, whether or not it produces social workers with appropriate knowledge and skills, is not the responsibility of the social worker but of their responsibility as members of the profession or as citizens."

The document argues that social work values in Britain are "pluralistic and gradualist". It is concerned with greater personal and social fulfilment in one generation, and not with the complete sacrifice of fulfilment today for some long distant aim, however attractive the prospect."

Reactions to the consultative document have ranged from the mildly critical to the outright hostile. At the hostile extreme, it has been labelled social workers' "Black Paper" and social workers at the University of Warwick have linked it with Professor Julius Gould's attack on marxists in higher education.

But even the milder British Association of Social Workers has disputed the need for the kind of curriculum uniformly espoused by the training council. They say in an official response that further starting towards the curriculum would be unwelcome.

"It needs to be recognized that people come to social work education with a variety of prior experiences; some are change-of-career students, some have been working for several years in social services departments, others are recent graduates with no substantial experience of employment."

"It is the very richness in the type of candidate for social work education which points to the strength of practice in the future, but, at the same time, this diversity does pose challenges to any person or organization who seeks greater standardisation in the output of social work courses."

The BASW refutes the training council's argument that the inculcation of skills has been neglected. In favour of a broad social science education. And it says there is no evidence that sociology has exerted too great an influence on the social work curriculum. If it had, the association points out, "one may argue this is a valuable and important development."

The training council intends to publish the responses to "consultative document three" in the autumn. Whether it will proceed with the task of introducing greater curriculum uniformity is hard to predict. Certainly, the council has an obligation to promote social work education, and its intervention in curriculum matters is legitimate. But the hostility provoked by Mr Wright's paper may convince CCETSW that Pondera should have had box closed.

Simon Midgley meets a group who are opposed 'to all the usual things'

The search for an alternative way

A Trojan horse for change is stealing its way into the curriculum of the "New College Group" as it will probably be dubbed, share an intense dissatisfaction with the "excesses" of our advanced industrial capitalist society and with the failure of colleges, polytechnics and universities to provide the fundamental moral, political and spiritual problems of the day.

They are "opposed to all the usual things" as Mr Graham Carey, senior lecturer in Art at Hingley College and one of the group's founders, wrote in 1975.

Expressing nothing if not fashionable, albeit worthy, causes the group is ideology united in its distaste for war, the arms race, materialism, conspicuous consumption, high technology, nuclear power stations, bureaucracy, pollution and outdated systems of political control.

No less predictably perhaps it is in favour of conservation, self-sufficiency and social responsibility. Existing institutions of higher education it is felt, are seriously compromised by the technology they serve. Knowledge has been needlessly compartmentalized, universities and polytechnics are too large and bureaucratic is rampant.

Argo: there is a desperate need in an alternative college or colleges to, among other things, stimulate evolutionary change in society. Such an institution would be small (remember Schumaker?), residential, self-sufficient (as far as possible), and democratic.

The models or "images", as Mr Carey prefers to describe them, which have influenced the group's thinking are impeccably progressive. They include: the Bauhaus; the Black Mountain College in North Carolina; Ruskin College (in its early days); Teind, the Danish folk high school which claims to have the biggest windmill in the world; and less obviously the Cistercian movement which swept Yorkshire in the twelfth century.

Among the pantheon of radical deities whom the group admire are: Ivan Illich, the educationalist who wrote *Deschooling Society*; Martin Buber, the Austrian theologian -- "the existentialist thinker we would most closely identify with"; Theodore Roszak, author of *Making of a Counter Culture*; and last, but not least, Fred, the twelfth century Abbot of Rievaulx. Although Einstein, Tolstoy, Wilhelm Reich and Brecht also get a look in: being quoted variously for their belief in "the fine thinker and the fine teacher", "broad labour", "work democracy" and the importance of the "great art of living together".

Shades of Haight Ashbury and the flower power generation aside, it is tempting to dismiss such dreams as hopeless millenarianism. Graham Carey is, however, also a small advertisement in *The Times* inviting readers in sympathy with the idea of alternative provision in higher education to contact him.

Nearly 30 people turned up to a meeting in the late January. Two-thirds of those present were college lecturers although there were also two representatives of the Welfare State Experimental Theatre Group, a couple of Australian lecturers caught on the wing in the home country, a film maker and an adult educationalist.

After several meetings and much prolonged discussion, supporters have come and gone and now a small residual hard core remains forming the nucleus of an informal group dedicated to promoting an alternative college.

Independently of this initiative Mr Boyle, a member of the council of the British and Foreign Schools Society, has persuaded the society



Music-making in the shadow of the windmill at Teind

to allow him to set up a small sub-committee to investigate the possibility of creating an alternative college.

The society is looking for a new role to play in the wake of the government's teacher training cuts, which have led to the dismantling of its college of education empire.

As well as awarding a small grant to Mr Boyle to explore the possibility of establishing an alternative college, the council has also authorized a study of the feasibility of creating a multi-cultural education centre.

Whether at the end of the day it agrees to help fund an alternative college will depend on its financial situation (which is uncertain at the moment) and on the relative merits of the various educational options available.

Meanwhile, irrespective of the outcome of the society's deliberations, the "New College Group" is busy preparing a draft discussion document detailing the possible structure of such a college and rustling up support for its initiative among teachers, trade unionists and educationalists generally.

Although individuals' emphases differ, all members of the group are in broad agreement about what is wrong with society and with higher education in particular.

In an address to the British and Foreign Schools Society's council in January, Charles Boyle described the present educational system as "vast enterprise for equipping man for disciplined consumption".

The characteristics of the present system of higher education, he said, "are those to be expected of a society which is cruelly materialistic, selfish and committed to unending economic growth and technological progress".

"This society exists in a world in which the limited resources of the earth are exploited and the environment poisoned as never before; in which all nations are armed as never before; in which both the absolute numbers and the fraction of humanity dying from starvation are higher than ever before; and in which all these destructive trends are increasing as never before."

Specifically on post-school education, he commented: "Within our colleges we see bureaucracy rampant, the dominance of administrators over teachers and researchers, a continual and undignified rat-race by staff for a niche in the hierarchy, a sense of remoteness and homelessness among students. The dehumanized language of industry becomes commonplace; the

"management" talk of "efficiency", "output", "input", "cost-benefit analysis", "feedback", as if a real effort was being made to spread the attention of the factory floor to the lecture room.

"Knowledge is regarded as a commodity and the education industry is devoted to 'produce' it, it is produced in quantity, which can be easily controlled by the bureaucrats and easily labelled as the preserves of particular specialists."

Peter Abbs and Graham Carey, both members of the group, also spoke. In the highest section of education, during the last ten years, we have witnessed the emergence of a new system of giant polytechnics, huge multi-purpose, multi-campus institutions, modelled on commercial businesses, built unfeelingly of concrete slabs and glass.

"In many ways these educational complexes also represent an organized flight from the delicate tasks and paradoxes which mark true teaching and true learning, a flight into the unambiguous simplicities of mass and number."

Dr Mark Richardson, another member of the group and a lecturer in chemistry and the philosophy of science at the West London Institute, believes that existing institutions of higher education fail to equip students to criticize society or to analyse contemporary problems.

Quoting Plato, "Mine is not a well to be filled, but a fire to be kindled", he says that there is too much emphasis on transmitting facts. Knowledge is presented as immutable, non-negotiable. More attention needs to be paid to personal development, the fostering of greater spiritual awareness, and the creation of a sense of community.

Students need to be educated not merely in the arts of physical self-sufficiency but also in the wider sense of "believing one has one's own access to truth". Independent of a slavish adherence to text, they need to receive wisdom from other mouths.

In short all members of the group have a shared concern with what Graham Carey describes as "the catastrophic way in which our civilization is developing" and are united in the tremendously urgent need to avert it from its present course.

Although plans are at an early, exploratory stage at present and no detailed practical proposals for an alternative college have yet been agreed, there is a certain amount

of unanimity as to some of the essential characteristics of a new institution. Charles Boyle believes that the college's work in all fields should be concerned with "critical analysis of the great problems of the present day, and the implications of these, particularly at the individual personal level, for the future".

"In short", he says, "its primary concern should be the creation of a new culture".

Graham Carey and Peter Abbs say: "The long-term aim of our college is to pioneer a fresh model for educational practice, a model which would be cultural in aspiration, democratic in structure and ecological in organization."

The emphasis, says Graham Carey, should be on developing "the balanced life" where equal importance is placed on both the intellect and the emotions. A central tenet of the college would be that "the development of the individual can only be obtained in relationship to other people".

At times enthusiasm almost verges on the mystical, for example, from *Proposal For A New College*: "Our concern is to restore a broken unity, to restore a broken unity at a different level, something that has been lost, something that characterizes the timeless primitive community" and "Both into a contracting world, the mind has no choice but to create another theme."

Where can it be found but in that inward domain from which we have become sadly estranged? At others glibly utopian. In his address to the BSSS: "There would be a strong emphasis on individual development and an encouraging students to tell their own lives and to follow their own interests rather than to accept complacently programmes devised for them. Students would be helped sympathetically, not spoon-fed predigested meals. There would be no question of forcing students from studies which interested them, nor of refusing them training in skills if they showed ability..."

Ideally the group hopes that the college will be a small, integrated community with no more than 200 to 300 students and, say, 12 members of staff. Staff and students should be available to each other in a way that self-sufficiency can be pursued and agricultural, cooking, cleaning and administrative duties would be shared communally.

Apart from the obvious moral skills of horticulture and house-keeping, subjects for study could include the mass media (a la Birmingham University's Centre for Contemporary Cultural Studies), the philosophy of science, expressive writing, drama, literature, language and the arts generally.

Politics and sociology would be essential in any institution with pretensions to analysing society's ills. However the former would be studied not via books and lectures but through the process of living together in the community, while the latter would be a "natural empirical fashion".

Psychologically orientated psychology would be in the behavioural psychology. Crude manual work is OK but specialized vocational skills are a no-no.

Such a college, he says, would ideally consist of an urban and rural centre. In this way students will be able to experience what Mr Carey describes as "inner urban desolation" as well as the delights of the natural world.

Links could be built up with other alternative educational or community projects, for example, Laureston Hall in Scotland which Mr Carey describes as "a semi-self-sufficient cooperative".

Formal entrance qualifications would be abandoned. Staff and students would devise their own teaching methods and study programmes. The college would make special efforts to meet the needs of the unemployed, the teaching profession, the traditional school leavers and the local community.

The group is hoping to open the college within the next two years -- possibly with DIS financial support. Only time will tell whether the alternative college succeeds like the ancient Greeks in breaching Troy or turns out to be a paper tiger. If it fails to materialize then the foreboding of an ill-fated and fony, signifying nothing."

Flexible approach to distance learning

Last year, following a conference in London, 48 colleges of further education represented at the conference expressed the desire to participate in a new scheme of distance learning linked to face-to-face tuition. At the time, the number of applicants was rapidly rising to 80.

The response was so overwhelming that the sponsor of the scheme, the National Extension College at Cambridge, was forced to hold a busy recruitment drive to meet the demand.

Seven months later, after 120,000 prospectus requests, the scheme is about to embark on a pilot study in conjunction with the local education authorities, which will be providing financial backing and monitoring the progress of the project.

The NEC believes *Flexi Study* offers a range of further education opportunities for students who are unable to attend conventional full-time courses but who are likely to reach the standards of the scheme. The NEC provides correspondence materials, generally at A, O, and equivalent levels, to participating institutions. The colleges themselves then take on the task of enrolling students, monitoring progress, marking papers and providing face-to-face tuition times convenient to both tutor and student.

The scheme is aimed in particular at students unable to attend conventional full-time or evening classes, shift workers, single parents, and those working overseas.

Use of the *Flexi Study* system has been pioneered at Barnet College in North London during the last academic year.

Barnet's initial attempt to pioneer *Flexi Study* was an unqualified success. It was so popular that the college was unable to cope with the demand for the scheme. The policy had to be modified and the scheme had to be restructured.

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One aim of the NEC's latest expansion with *Flexi Study* will be to expand the system further in the London area. A consortium of colleges with open learning centres was established about 18 months ago in London, but development since then has been painfully slow.

NEC is hoping that by injecting a new stimulus into the consortium in the form of *Flexi Study* materials plus additional organizational support, the pace of progress will increase.

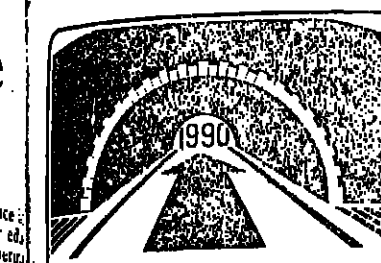
Mr Richard Freeman, NEC's director, is also hopeful that the London consortium may be the forerunner of other similar groups. He anticipates that eventually such groups will have the financial and staffing resources to produce their own teaching materials and to extend the range of subjects available.

The other major ambition of the new *Flexi Study* venture will be to promote the gradual growth of the system to form a network of individual colleges throughout the country.

As the first step, a handful of strategically placed institutions which have expressed interest in the scheme will be selected to participate. By 1980 NEC expects to have 20 to 30 colleges in the established *Flexi Study* scheme.

Maggie Richards

Gloomy predictions from the university administrators



The conference of university administrators this week publishes its final report on student numbers in the 1990s. The report confirms the gloomy predictions of the administrators' interim report which appeared in *The Times* in March last year.

It says that the estimate that 15 per cent of 18-year-olds will enter higher education may be over-optimistic when the international trend is towards choosing employment rather than a degree course. It also views the need to increase the proportion of working class students in higher education as "an almost intractable problem."

The report says that competition for student numbers could lead to greater disparities within and between the two sectors of higher education.

The report examines the effect of a fall in student numbers on academic staffing levels. The average age of a tertiary teacher is currently 41. The data in the AFE suggests a very similar picture. Staffing problems will therefore become a major concern unless Government accepts the need for improvement in staff: student ratios. Institutional self-government will come under serious strain as there are differences in age profile between institutions and between subjects.

There will be serious consequences for research and there must be a danger that a whole generation's research output will be affected. Above all there will be acute competition for student numbers not only between the two sectors of higher education but between the different institutions within the sectors.

Competition for student numbers, as well as dependence on fee income, may lead to an increase in the power of the consumer, particularly in weaker institutions. The more prestigious institutions will be reinforced by a continuing concentration of research funds. This could lead to greater disparities within and between the two sectors than now exist. Some restructuring might become inevitable.

The prospective short-term increase in the size of the 18 year old age group gives some opportunity

for institutions to try to plan for the future. In April 1977, the Central Policy Review Staff's report *Population and the Social Services* offered as one of the policy options for higher education the limitation of 1980s peak demand by a temporary restraint on participation rates or "tougher staff ratios and accommodation standards".

The Secretary of State's address to the American National Conference on Higher Education in March 1978, seemed to confirm that the Government would be attempting to "tunnel through the hump" when she stated that staff: student ratios would be allowed to deteriorate from 1:92 (the current university sector figure) to 1:10 over the next four or five years.

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part-time students, from about 11 per cent in 1975 to 12 per cent in 1977-78. One effect of a steep fall in the 18 year old entry to AFE might be a new impetus to reverse this trend.

The effect of the potential decline in numbers because of the fall in birth rate is not well known to date. The group's interim report drew attention to the differentiation of the birth rate by social class and suggested on the basis of an OPCS survey of births in 1970 that the proportion of entrants to higher education suggested that the fall in entry might be less severe than the overall numerical fall in the birth rate.

Study of the census material for 1971 however suggests that the fall in the 1961 to 1970 there was a not inconsiderable fall in the birth rate for social classes I and II. The figures cast doubt on whether the numbers will reach the DES low figure of 1.3 per cent in the 1990s which is generated entirely by an increase in mature female entrants offsetting a slight decline in the mature male entry.

AFE shows a considerable increase to a figure of 25 per cent for home students and 35 per cent for overseas. AFE draws a much higher proportion of its entry from FE colleges and only 43 per cent of the 1975 entry to full-time or sandwich courses had spent the previous year in secondary school.

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Children at play school. Will they choose to enter higher education in the 1990s?

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Sceptical voice of the American Right

Robert Lekachman continues our series on cultural/political magazines with a personal assessment of the American quarterly 'The Public Interest'

Among a large number of American journals of small circulation and serious concern with public issues, *The Public Interest* has attracted most acclaim and influence, a testimonial to the quality of its contents and the attractiveness of its general positions on anything from pornography to poverty.

The first issue in the Fall of 1965 was jointly edited by Irving Kristol, Martin Lasky's predecessor at *Encounter*, and Daniel Bell, sociologist, polymath, and prophet of the post-industrial society. Issue 51, Spring 1978, still listed Irving Kristol as one of the two editors. Nathan Glazer, professor of sociology at Harvard, had by this time replaced his colleague Daniel Bell who subsided into a role as chairman of the publications committee and frequent contributor.

The first issue featured essays by Daniel P. Moynihan, Daniel Bell, and Nathan Glazer. By no special coincidence the current issue lists articles by Daniel P. Moynihan and Daniel Bell. The thread of continuity is exceedingly sturdy.

Magazines of this character which attain bar mitzvah age are successes by the test of survival alone. Much more of course can be said about *The Public Interest*'s role in the political and intellectual arena. An acute French observer, Pierre Dommergues, in the May issue of *Le Monde Diplomatique*, treated *The Public Interest* as a significant element of explanation for *Une Droite Triomphante aux Etats-Unis*. As Dommergues and others have pointed out, until the advent of this quarterly American liberals and radicals very heavily monopolized the pages of intellectually reputable journals, however infrequently they succeeded in translating this monopoly into electoral triumphs and Congressional legislation.

American conservatives amply vindicated John Stuart Mill's observation that, though not all conservatives were stupid, an inordinate number of stupid people were conservative. *The Public Interest*, as well as *Commentary*, *The National Review*, and a depressing number of newer rightist periodicals, signalizes the emergence of a strong vein of unstupid conservative commentary and polemic. A pity no doubt, but there it is.

The label generally applied to *The Public Interest* is neo-conservative and for want of a better I shall use it in what follows. Certainly many contributors tend to restate conservative verities in vogue since Edmund Burke if not Thomas Hobbes. Custom and tradition do count. Inequality is inherent in the human condition. General scepticism about the efficacy of school busing and compensatory education as remedies for black inequality is founded upon attachment to the values of local self-determination and an equally traditional emphasis upon the importance of class rather than colour as determinant of behaviour.

Thus David Armors' "The Evidence on Busing" (Summer 1972) purported to demonstrate that attempts by judicial fiat to resettle white and black pupils produced much social turmoil, occasional violence, and no measurable improvement in the educational performance of black youngsters. Thomas Sowell, a black economist of excellent reputation, emphasized the importance of individual striving and other hallowed bourgeois virtues as his brothers' and sisters' best prospect of inclusion in the all-American celebration. The political scientist, Edward Banfield, explained continuing black poverty as the consequence of a pervasive reluctance to defer gratification, a characteristic as much of lower-class whites as of poverty-stricken blacks. Nathan Glazer sharply assailed affirmative action in higher education and employment for setting quotas which rewarded groups rather than deserving individuals.

In our day neo-conservatives and plain old conservatives have taken some solace from the runarounds of economists. As George Stigler, an associate of Milton Friedman at



Spheres of interest: Daniel Bell at Harvard (top), Daniel P. Moynihan at the United Nations (above) and Richard Nixon at his White House desk.

the University of Chicago until the latter's retirement, long ago rejoined, much in the training of economists turns them into practising conservatives. The catchwords "scarcity", "cost", "choice", and "trade-off" are dimmed into the corners of building pundits until by the time their socialization is signalled by award of the doctorate they come to believe that the process of rational choice was indeed between the lines of Mises' tables. No occasion for surprise then that the pages of *The Public Interest* have frequently discussed cost-benefit analysis, educational vouchers, negative income taxes, pollution levies, and other free market approaches to problems of individual or corporate choice.

Economists have been convenient allies in restatement of neoconservative scepticism about the efficacy of government. Although the editors of Lyndon Johnson's Great Society to a pair of moderately liberal guest editors (Winter 1974), Eli Ginzberg, a Columbia University manpower specialist, and Robert Solow, an eminent MIT economist, the run of regular issues steadily criticizes education, income redistribution, manpower, housing, and medical innovations of the Great Society. A constant reader could hardly avoid the conclusion that the Great Society had been a resounding failure.

This stance accords well with contemporary public disaffection with politicians from presidents downwards. In "Should Judges Administer Social Services?" (Winter 1978), Nathan Glazer delivered a sermon against judicial meddling in matters best left to individuals or their elected representatives. James Q. Wilson's and Patricia Richelle's "Can Government Regulate Itself?" (Winter 1977) amounted to a disquisition on the theme that "The growth in the reach and discretionary authority of central government... raises fundamental problems of environmental control and accountability of agencies charged with serving public purposes."

"The preceding number was organized around three articles of scepticism of government capacity to diminish industrial accidents, conserve energy, or improve environmental quality. As one leads through the file, the titles tell the tale of scepticism about the best laid plans of egalitarians, social reformers, and friends of the poor

and black. No wonder that *The Public Interest* was popular in the Nixon White House which for a spell harboured Daniel P. Moynihan as domestic councillor and that he regarded as the President's favourite intellectual. Not that *The Public Interest* should be confused with a merely Republican organ. Many of its preferences are those of Democrats of conservative or moderate temperament. A favourite contributor, Daniel Moynihan now serves as Democratic senator from New York and promotes an agenda of fairly traditional social legislation.

For the most part the journal steers clear of foreign affairs, but Daniel Bell and Nathan Glazer publicly opposed the American role in Vietnam and the former preserves tenuous ties to the democratic left. Another contributor, Samuel Huntington, is on Brzezinski's National Security staff. At a guess there are more moderate Democrats than Republicans of any stripe on the contributor list. For the most part they are Democrats sceptical of traditional Democratic nostrums.

It is not hard to explain the journal's prestige. It is sharply edited. Many of the writers are household names in the social science fraternity. Their essays are usually scholarly and quantitative, and at the same time far more pointed or even polemical than the contents of learned journals.

Best of all the magazine has caught and reinforced a public mood. From mid-1965 when Lyndon Johnson, the 1964 peace candidate, abruptly magnified American Vietnam, to Nixon at last fled the office he had disgraced, Americans found less and less to admire in a government daily revealed as deceitful, contemptuous of its constituents' intelligence, and ineffective in administration as of undiscovered wire tapping in the Watergate.

In the pages of *The Public Interest* this distrust has been legitimized by scholars of repute who because in many instances their own intellectual origins were in the left, as in the case of Kristol, Bell, and Glazer. It is worth an incident comment that like *Commentary*, *The Public Interest* registers the transition of some Jewish intellectuals from the political left to the political right. For them as for many other Americans, egalitarian-

Who are the THESdons?

"Don's diary" forms for me, as I imagine it does for many academic who are regular readers of *THESE*, an opportunity to see some of the *homo academici*. Over the past couple of years, however, I have come to suspect that quite apart from their entertainment value the writers of this column (*THESE*don't) are perhaps in some important ways unrepresentative of the group from which they are drawn. I have, therefore, carried out an analysis of the 175 numbers of *THESE* from No 168, when the column started, up to No 312.

I have analysed 134 *THESE*don't contributions with respect to sex of writer, type of location of institution to which the writer belongs, grade of staff and as a discipline or type of staff. About 10 per cent (12.5) of the writers are women.

In the 118 contributions by academics in the strict sense as professors appears to be heavily represented (Table 1). However, this is largely from the fact that 23 out of 48 contributions in 1973 were from professors. More recently the representation of these holding chairs is more modest. Likewise, while four out of five contributors in 1982, only one has provided a column since that year.

Table 1	Sex of writer and type of institution
Research Assistant	1
Lecturer	13
Senior Lecturer	17
Professor	48
Professor	41
Vice-Chancellor	7
Unclassified	15

Table 2 shows the breakdown by type of institution from which *THESE*don'ts come; the predominance of university contributions is not surprising. The Open University is not a contributor. A closer analysis of the distribution of contributions by university reveals some interesting patterns (Table 3). The University of London takes, perhaps unsurprisingly, 12 places, Cambridge represented by six contributions and the other names by eight for Oxford and six for Wales.

Table 2	Institutions from which <i>THESE</i> don'ts are drawn
University	111
Open University	5
Polytechnic	10
Other	6

Table 3	Universities with high and low scores for <i>THESE</i> don'ts
Four or more contributions	No contributions
Cambridge	4
Oxford	6
Edinburgh	1
Leeds	1
Sheffield	1
Strathclyde	1
York	1
Wales	6
Warwick	4

The most provocative comparisons are to be seen in the breakdown by discipline (Table 4).

Table 4	Subject areas of <i>THESE</i> don'ts
Administrative (including Vice-Chancellor and services)	1
Arts (including theory and music)	1
Education	1
Law	1
Medicine	1
Philosophy or unknown	1
Science	1
Social Sciences	1
Technology	1
Total	18

The predominance of contributions from those working in the arts and social sciences is very marked. Moreover, of the 45 social scientists, no less than 24 are sociologists. Whether a distribution of this sort is balanced and whether it is reasonable that all the sciences should have contributed only about 10 per cent of *THESE*don'ts are questions which *THESE*don'ts might like to discuss.

J. A. Beardmore
The author is professor of sociology and vice-principal (academic) of University College of Swansea.

BOOKS

An unsavoury diet of Danish Blue



What effect does pornographic material have on those subjected to it?

set up at Gay's Hospital? Quite a lot, because Dr Gillan's final analysis is actually an explicit and vulgar version of a wide-spread attitude. She claims that repressive and authoritarian religion has contaminated our education, industry, education and nursing. What we call "reforming" is really the thin end of a revolution. It is not violence which causes control but control which creates violence; a free market in desire would bring about peace and abolish war. Thus the theory of dualism legitimizes the practice of the reconditioned reflex.

Professor Eysenck's contribution is somewhat more nuanced. He challenges the idea that sex is a biologically necessary. Rather it is socially patterned appetite. Our society has chosen, through the edicts of its commissary of culture, to extend as far as it can the range of sexual conduct. If, he says, we want to live in a society which stresses "permanent secure and loving union" between a man and woman, then pornography and what it stands for is a serious threat. What pornography stands for is the attitude of continuous stimulation sustained by the commercial deployment and exploitation of sexuality. Now, of course, this takes us a considerable distance from pornography proper, which now seems a minor issue compared with the question of social atmosphere constantly reinforcing the sexual motif.

Eysenck goes on to make a number of important points. One concerns the variable effects of pornography: it does not have one set of consequences. Another concerns the issue of individual choice. There are those who claim you can turn it off, you do not need to go, you do not have to fall in with your peer group or accept the messages of the media. This viewpoint really does ignore the slow stain of acculturation of the invisible power of usage. The arguments for the right of individual choice may well be powerful, but it is precisely the unrestricted power to emit signals on the media which impinges on that right. The right of certain persons to send out a powerful signal can be in collision with our right to rest in peace.

The model of society which envisages atomic individuals each engaging in acts of autonomous consent is about as realistic as the model which saw employer and worker as free and equal partners in a contract. The cultural libertarians are the modern equivalents of the proponents of economic laissez faire. This does not mean that the authoritarian are right; it means that there is a lot of hypocrisy and humbug in the progressive pose of the libertarians.

An important part of the libertarian case for pornography is that it does not, in and by itself, give rise to sexual criminality. This is widely accepted and it is the burden of Dr Kutchinsky's contribution to this volume. But he also cites various experiments based on exposure to pornographic materials. He claims that these largely document the frequent claims that stimulation leads to nothing worse than boredom. It is apparent that any idea

suggest that an organization like the National Viewers and Listeners Association represents a response to secularization. It tries to defend a culture with a religious basis against violation. Their understanding of NVALA firmly reflects the view which sees Mrs Whitehouse and her allies as using the symbol of television to defend a threatened social status. This latter view is a typical sociological put-down and does not stand up to the evidence. We may or may not agree with the redoubtable Mrs Whitehouse but we can at least concede that she is moved by avert principle and not covert interest.

NVALA and the Festival of Light are of course the modern inheritors of a tradition three hundred years old, which began in the 1690s with the Societies for the Reformation of Manners. Anyone who wants a rumbustious, sympathetic informed and amusing account of movements for purity, can find it in Edward J. Briskov's *Vice and Vigilance*. Throughout the three centuries the forces of purity and purification sought to clean up the public face and push the erotic into the dark. It is a mixed legacy running from the moving and beautiful figure of Josephine Butler campaigning against the double standard, to all the mean and narrow attempts of those once described by *The Daily Telegraph* as *Prudes on the Prowl*. At pornography or the portrayal of violence have no effect on behaviour and emotional reactions are affected, and the effects are not transitory. Psychology has spoken again. You pay your money and you pick your experiment.

Yet the psychological evidence matters, for reasons which are underlined by Christy Davies in an important opening essay. This concerns the rhetoric which our rulers deploy to argue about censorship. He documents a shift from moral arguments about good and bad to arguments about damage to society. This shift is a symptom of psychological and sociological evidence assumes greater weight, even though the shift is less pronounced with respect to censorship than with respect to divorce, abortion and capital punishment.

However it is not at all a straight fight between morality on the right and causality on the left. Moralists generally employ some notion of social causality as well as the rhetoric of pollution and poison. On the other side, part of the libertarian argument refers back to just those ethical considerations about personal liberty put forward by J. S. Mill over a century ago. On the whole of course the arguments on both sides are incoherent in their morals and muddled in their understanding of causality. Davies concludes that the changes brought about by Parliament were "neither deliberate nor rational nor liberal".

If our leaders appear incompetent and irreverent, it is because they are. Liberalism was an unintended consequence of muddling through: the spring of change lay outside the parliamentary arena. The legal arguments assembled in this volume are subtle and, in my mind, convincing. Dravan concludes that both philosophically and empirically the only case made out so far is for the need to tackle the danger of commercial exploitation of obscene items or their indiscriminate advertisement rather than their creation or consumption. Macquie concentrates on the relationship between privacy and obscenity. He takes off from an argument that the public display of obscenity intrudes on personal privacy and he concludes that obscene displays are simply one aspect of environmental offence. It is a general public nuisance not a particular private one.

Of course, the connection between private act and public display is very much at the heart of the campaign inaugurated by Mrs Whitehouse and discussed here by David Morrison and Michael Tracey. It has been suggested quite plausibly that television intrudes a set of values into the home and eats at the moral substance of the family. Children are inducted willy-nilly into a smart world of showbiz and new commercial values deeply inimical to the quiet decencies of provincial England. The home is subject to systematic and continuous penetration. Thus Morrison and Tracey

laude movements which preceded the First World War. The combined moral and medical assault on masturbation makes awesome reading. These were the days in 1905 when the chief constable of Manchester was able to claim his jurisdiction was known as "the holy city" following the seizure and destruction of 25,000 copies of *Kalva*, in *Reveries* to Success. Haden Powell advised young men that the "rutting season" could be negotiated without loss of semen if they bathed their genital organs in cold water daily. In 1936 Maurice Godely of the Gospel Purity Association patrolled towns and country covering quick advertisements and shops where risqué pictures were sold with posters which warned "Having eyes full of adultery, and that cannot cease from sin, where will you spend eternity?"—an early anticipation of the government health warning.

It is a very odd story, combining heresy, reformism, philanthropy and prudery. I conclude with one or two pleasing examples of the entertainment value of Briskov's volume. In 1901 The White Cross Society sponsored *The Curse of Donahoe*. This work was followed by *What a Young Boy Ought to Know* and a Kirs sex series run by a Congregationalist minister. Especially popular with parents was *A Talk With Girls About Themselves*. Pages 47a and 47b provided alternative explanations of the facts of life, one explicit, the other incomprehensible. You clipped out one or the other along the perforation according to taste.

And in 1934 the Bishop of London, told the House of Lords "when I hear of 400,000 (contraceptives) being manufactured every week, I would like to make a bottle of them and dance round it." O tempora, a mores!

David Martin

history

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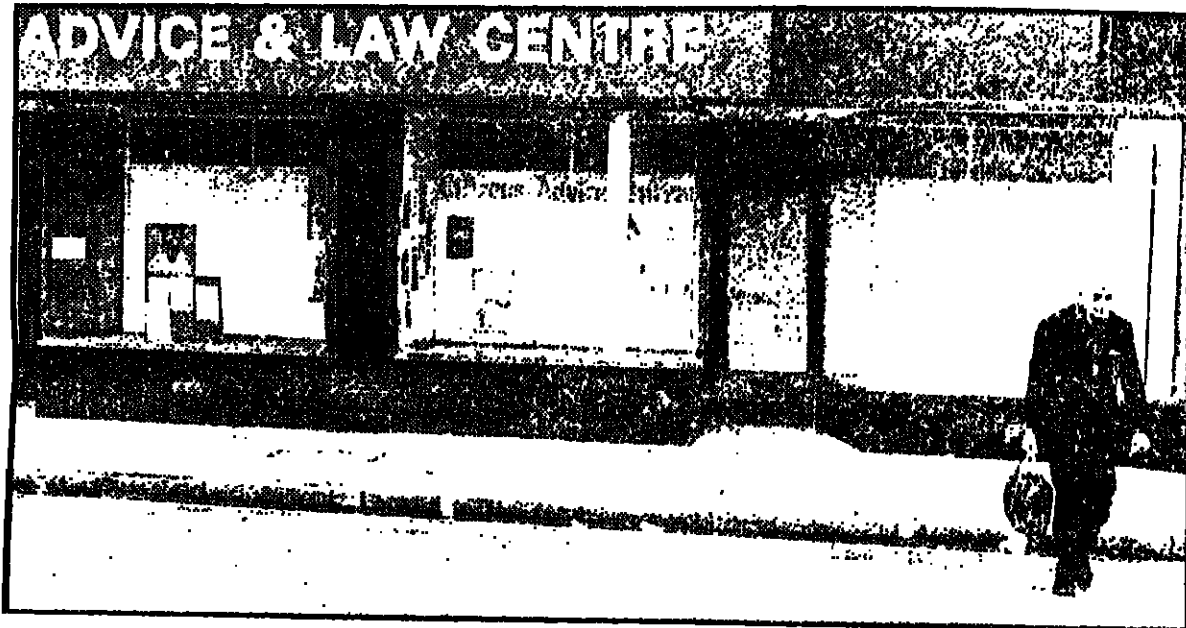
Law centres and tribunals—studies in legal aid

Unmet Need: the case of the neighbourhood law centre by Anthea Byles and Pauline Morris
Routledge, £2.95
ISBN 0 7100 8649 0
Representation and Administrative Tribunals
by Anne Frost and Coral Howard
Routledge, £2.95
ISBN 0 7100 8701 2

The Nuffield Foundation set up the Legal Advice Research Unit (LARU) in 1971 to consider the problem of "unmet legal needs" and to evaluate a number of experimental schemes designed to improve access to legal services. The main object of this research was to guide policy-makers and thereby pave the way for government intervention, but LARU also hoped that these projects would show the potential of socio-legal research and contribute to its development. These two objectives provide very convenient criteria for evaluating the research undertaken.

Unmet Need is a case study of one year in the life of the North Kensington Neighbourhood Law Centre, the first such centre to be set up in July, 1970. As the authors point out, they originally hoped to compare a number of alternative strategies for the delivery of legal services. However, neighbourhood law centres took longer to get off the ground than had been anticipated so that North Kensington was the only law centre in existence in much of the life-span of LARU. Moreover, such are the conflicts between social reform and social research that when new law centres were set up they refused to co-operate with the planned research. This is unfortunate since there are now almost 30 neighbourhood law centres and many of these have developed strategies which differ radically from the case-work approach developed by North Kensington.

One of the researchers spent a year in the law centre as a participant observer, and as a result of this experience, the authors describe some of the constraints on the law centre and the organizational problems it experienced. To someone who was himself involved with a law centre for four years, much of what the authors write about the dilemmas of social reform sounds very familiar, such as the conflicts between participative and representative democracy, equality and efficiency, an open door policy based on individual casework and a more selective policy in which law is seen more explicitly as an agent of social change, the need for financial support and the desire for independence. However, their material is hardly exploited to its full since it is presented in a straightforward descriptive way and is not used either to test theories or to develop hypotheses. Thus, although their account may well be



One of London's law centres—meeting the needs of the community?

of interest to anyone setting up a new law centre it contains little guidance for policy-makers and is unlikely to convince anyone who is sceptical of the academic merits of socio-legal research.

The authors also present a statistical analysis of the problems dealt with by the centre and interviews with samples of those who used the centre and with non-users living in the community. The results are as much as one would expect; the most common problems were housing problems, users were largely uneducated while non-users experienced many of the same problems as users. However, in spite of the book's title, this neither tells us anything about the extent of "unmet need" for legal services nor the concept itself receives attention, nor about the centre's effectiveness in resolving clients' problems.

Representation and Administrative Tribunals is a comparative study of three welfare tribunals: national insurance local tribunals (NLTs), supplementary benefit appeal tribunals (SBATs), and rent appeal tribunals (RTAs). As such, it is a novel piece of research since previous research into administrative tribunals has not been of a comparative nature. The authors observed 276 appeals at tribunals in south London and Merseyside and then interviewed an even larger sample of 416 at tribunal chairmen and members, appellants and their representatives. Although the researchers used a schedule to record salient characteristics of the tribunals, this is not reproduced in the book and no systematic evidence is presented to support their description of tribunal hearings.

Both books are published in Routledge Direct Editions. Each contains about 30 pages of text, including a great deal of public material as a follow-up of the research. In the case of *Unmet Need*, which such books make it possible to publish in a series of small volumes. This is partly because the book is taken from a series of other published research. *Representation and Administrative Tribunals* was completed in 1974 and would have been better published as a journal article on each part of the project two or three years ago.

The selection of topics has been made carefully and with real understanding of the tutorial purpose of the book. They vary in length: some are dealt with in a couple of pages. Others (like the many-body problem) cover a whole chapter. Every chapter and most sections within them are almost self-contained. One could object to a two-page treatment of turbulence, but as an example of dimensional analysis, without mention of the enormous difficulties often encountered in tackling the next step forward. But the author has not selected his material as a collection of tricks to show off the virtuosity of the theoretical physicist, but as a follow-up of his research interests, but as real problems for which approximation methods, dimensional analysis and selection of small parameters give a few pages an understanding of the effect, and goes a long way towards its quantitative estimate.

The first three chapters, on dimensional and model approximations, perturbation theory, and the quasi-classical approximation, and the last four, are a slightly expanded version of the book.

M. E. Lee

Attractive employment

The Images of Occupational Prestige
by Anthony P. M. Coxon and Charles L. Jones
Macmillan, £12.00
ISBN 0 333 21795 0

This book is the first of three to emerge from the investigations of the Project on Occupational Cognition carried out by Tony Coxon and Charles Jones at Edinburgh between 1972 and 1975. Although the title of the research project (and, indeed, of this book) suggests a modest piece of sociological esoterica, the concerns of Coxon and Jones intersect fully with many of those which have dominated the research interests of post-war British sociologists: social mobility, occupational prestige, images of society, and class consciousness.

Their aim is to examine some of the basic premises upon which the vast edifice of sociological knowledge has been erected—a structure that has been built in the view of Coxon and Jones. Their study thus sets out to examine the subjective aspects of social stratification in modern Britain by asking some very basic questions about "ordinary people's judgments and estimations of the world of occupations".

Coxon and Jones regard such a task as an essential prerequisite of a satisfactory and successful sociological conception of occupational prestige, images of society and class consciousness. Their discussion in these areas is manifest in the first two chapters where they conduct a vigorous and cogent survey of the existing literature, concluding that hitherto sociologists have "either sacrificed generalizability by studying individual occupations in full idiosyncratic detail, or they treated interesting explanations on the firmest of methodological foundations. Their purpose is not, however, a wholly negative and critical one, for they are determined to "claim the 'subjective' for legitimate scientific concern, to insist that the sociological rhetoric of 'everyday knowledge', 'images of society' and 'occupational grading' be taken seriously and studied systematically as instances of cognitive sociology". It is, perhaps, an indication of the depth of interest in structuralist Marxism in the last decade that such an assertion is deemed necessary.

Coxon and Jones explore the areas of occupational cognition and evaluation by collecting data from 287 Edinburgh residents carefully selected from 16 occupational groups (plus two groups of non-users). The limited nature of this sample gives a clue to the overall style of research: it is very much an exploratory study aimed, as far as one can judge from this first volume, at deriving a valid methodological approach to occupational cognition and evaluation rather than presenting a wide range of substantive findings. The most commonly used technique was to ask the respondents to make a rating judgment of overall similarity between pairs of occupational titles and to note the criteria which they adopted. A second technique, used less often, was to prevent the respondent with sets of three occupational titles and then ask which two were the most similar and which two were the least alike. Again, the principles underlying these judgments were obtained. From this data Coxon and Jones are able to build up cognitive maps of occupations as held by their respondents.

In the final chapter they investigate their respondents' evaluations of 32 occupational titles. Here Coxon and Jones found considerable variation in the number of categories used and the criteria for ranking occupations. By an ingenious, novel and easily understandable form of the data on cognition and evaluation. Their conclusions, as they themselves admit, are largely negative ones—that occupation is ranked on a single dimension of perceived desirability and that information about occupational images

cannot in general be used to infer attitudes about any objective structure that may exist. Summarized in such a brief and crude manner as this, it may appear that Coxon and Jones have used a methodological sleight-of-hand to crack an empirical nut. However, this would be an unfair conclusion. The research must be reserved and after the publication of the two remaining volumes. This first one is very much a clearing-the-deck exercise, both conceptually and methodologically. The real work only emerges in the second volume, *Class and Hierarchy: social mobility and occupational cognition*, while the parts will await the third book to complete the series. My worry is that their original research problem will eventually slip through their fingers: I confess to being worried about the presence of the colour in the middle of the title of their second book. Even in this first volume the overall purpose tends to become lost in a methodological minor league, although this could have been rectified by a stronger conclusion. But no harm done.

Although the three-volume project presents problems to the reader by way of references to tables in other volumes and methodological considerations revealed elsewhere, Coxon and Jones have been well served by their publishers. In today's world of information overload, a research project of this kind is a rare commodity, especially when it is as comprehensive as this. The book is a valuable addition to the literature of sociology and is a tribute to the department's research record. It is tempting to reflect on the fact that while eminent professors have been largely and older-established departments of sociology have been less active in research in this area, it is a pity that the department's research record is not as strong as it could be.

Howard Neuber

Intuitive solutions

Qualitative Methods in Quantum Theory
by A. B. Migdal
by A. B. Migdal
W. A. Benjamin, £17.20
ISBN 0 8553 7064 1

This is neither a textbook nor a research monograph, nor a reference treatise. It is a series of essays on theoretical physics given by the distinguished Soviet academician, A. B. Migdal. As in all good tutorials, plausibility arguments are used to guide the reader to a solution, which is derived swiftly, and more intuitively than rigorously. Without feedback from his readers, the author uses terse and convincing arguments, and his time is never wasted.

The selection of topics has been made carefully and with real understanding of the tutorial purpose of the book. They vary in length: some are dealt with in a couple of pages. Others (like the many-body problem) cover a whole chapter. Every chapter and most sections within them are almost self-contained. One could object to a two-page treatment of turbulence, but as an example of dimensional analysis, without mention of the enormous difficulties often encountered in tackling the next step forward. But the author has not selected his material as a collection of tricks to show off the virtuosity of the theoretical physicist, but as a follow-up of his research interests, but as real problems for which approximation methods, dimensional analysis and selection of small parameters give a few pages an understanding of the effect, and goes a long way towards its quantitative estimate.

The first three chapters, on dimensional and model approximations, perturbation theory, and the quasi-classical approximation, and the last four, are a slightly expanded version of the book.

Approximation Methods in Quantum Theory

Theory and practice

Structures and Approximations for Electrons in Molecules
by D. B. Cook
John Harwood, £13.50
ISBN 0 3312 068 4

Dr Cook has presented a critical, analytical, and clear-sighted text. It is no compendium of parroted statements of other people's opinions. But new thoughts and questions posed in a clear, attractive style.

The emphasis on the "understanding-by-doing" approach to quantum chemistry, the way in which the subject is clearly presented, the measured evaluation of the status of applied theory, and the author's refusal to come down heavily in favour of either the semi-empirical or the *ab initio* methods, are all highly commendable. The book is a simple discussion of the molecular orbital method and to follow up the more esoteric problems discussed.

Peter Perkins

Over the edge

Edge-colourings of Graphs
by S. Fiorini and R. J. Wilson
Pitman, £6.50
ISBN 0 273 01129 4

This book is one of an increasingly common variety of text which gives an up-to-date survey of a particular specialist field, and as such is most welcome.

There is an introductory section giving the early history (1820-1964) and definitions of terms. This is still necessary in graph theory where there is no general agreement on terms, but the situation does seem to be improving. The development of the material is in terms of theorems with many of these proved interspersed with discussion of the historical development and the relevance of results.

The book of course is well constructed in one way or another, with the classification problem, namely strengthening the class of

potential practitioners of quantum chemical techniques. Whether senior undergraduate readers will follow the material is more doubtful.

The author's use of complete and analysed examples is extremely helpful and is brought in at just the right place. The discussion of atomic orbitals and orthogonalized atomic orbitals is also particularly well-written.

The weakest area of the text is chapter 10 which deals mainly with polynuclears. There are many new computational problems in this phase and no indication of these appeared—there were also a couple of errors here.

The end sections, which include listings of computer programs and a look at further developments, will appeal to all grades of quantum chemists and, indeed, some may be inspired to "invent" their own molecular orbital method" and to follow up the more esoteric problems discussed.

Maurice Beck

The numbers game

Numerical and Quantitative Analysis
by G. Fiehera
Pitman, £14.00
ISBN 0 273 00244 8

In the days when a calculating machine meant a large and expensive Brunswick, I can remember at least one person with an astonishing and uncommunicable ability to solve long problems in fluid mechanics by a skilful approximation on the back of an envelope. Since then enthusiasm with huge number-crunchers has taken over; this book, which is strong on the activities of the author's school in Rome, partly redresses the balance and partly shows why the artistic approach had to be superseded. Weinstein remarked that writers tacking papers on numerical analysis seemed to "lose heart". Some book have this property, but this book as a whole tells a good story, from beginning to end.

The first, and to me the most interesting part is on eigenvalue problems. After a discussion of the issues involved in the Rayleigh-Ritz method and the Fletcher-Reeves method, there is a description of the mathematical complexities aided by many excellent examples showing the actual results of the various image processing techniques described.

The sequence of the text is logical and well presented. Early chapters describe the specific requirements of the human observer so that the visual images can be correctly interpreted for the job in hand. The basic mathematical and statistical techniques (Fourier analysis, correlation and regression) are well covered early in the book. This is followed by a description of the basic image enhancement techniques, which include contrast stretching and the use of pseudo-colour image processing to increase the visual significance of a basically monochrome picture. Image enhancement will not significantly improve a severely blurred image; the chapter on image restoration describes how the techniques based on linear systems theory can be used to prepare degraded models from which the original blurred or distorted image can be restored to a remarkable extent by inverse filtering.

R. L. Perry

BOOKS

Image-builder

Digital Image Processing
by Rafael C. Gonzalez and Paul Wintz
Addison Wesley, £22.15 and £14.60
ISBN 0 201 02596 5 and 02597 1

Digital image processing is becoming increasingly used because relatively low-cost digital computers can store and process pictorial data. Such systems can be used for diverse applications such as the enhancement of pictures for transmission at minimum cost, the improvement of the quality of pictures from space probes, extraction of meaningful data from complicated X-ray pictures and automatic recognition of handwritten characters.

The authors have aimed to focus attention on the fundamental principles and theory of the subject. The book is not concerned with the hardware for picture scanning, computing and data transmission. This is an appropriate choice of presentation because the hardware practices soon become out of date, whereas the basic principles always must be understood. The text necessarily contains a fair amount of mathematics and is best read by a person approaching degree standard in an engineering or science subject. Nevertheless, the understanding of the mathematical complexities is aided by many excellent examples showing the actual results of the various image processing techniques described.

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Later chapters deal with the criteria which can numerically evaluate the performance of an image restoration technique. The authors clearly show the limitations of using predetermined computer algorithms for image restoration and they demonstrate the advantages of interactive image restoration schemes, in which human operator guides the manipulation of the image data in a computer so that the most visually acceptable result is obtained.

Digital image processing can put a large load on a computer. The authors have said little about the cost in terms of computer storage capacity and calculation time. Perhaps this can be forgiven because the cost of computers is so rapidly falling. Succeeding in its objectives, this is a clear and informative book.

Maurice Beck

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Maurice Beck

attack on this is through the method of orthogonal invariants. This is an ingenious way of finding bounds on eigenvalues by replacing one compact strictly positive linear operator on a Hilbert space by another equivalent one (in the sense that the two have the same eigenvalues).

The equivalent operator is then used to find bounds on the eigenvalues. This is a problem of some numerical subtlety; it involves the computation of the characteristic roots of successively large matrices, and although the upper bound calculation is straightforward, that of the lower bound is beyond the capacity of existing machines in its obvious form, and so an improved formula is found.

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Other problems in this part are to the computation of the (geometric) multiplicity of eigenvalues, in which a special case is the computation of the Betti numbers of a compact, orientable differential manifold. In the second part the investigations are of a *post hoc* nature, i.e. estimates needed before the application of some known method of approximation or indeed of a proof of an existence theorem.

C. W. Kilmister

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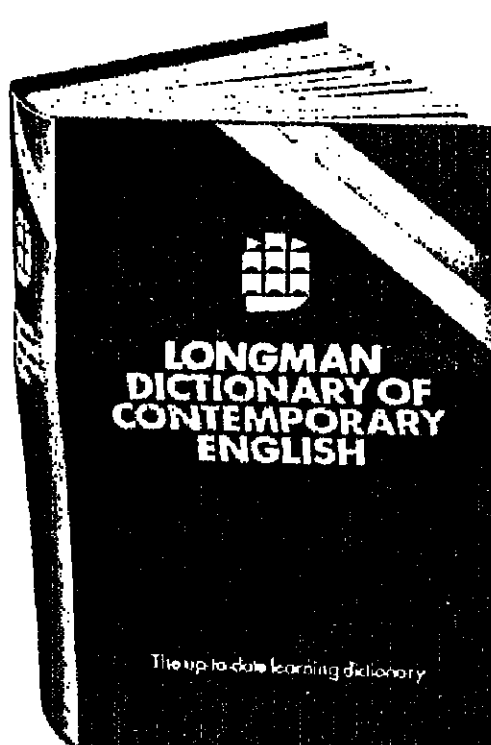
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Senior Lecturer K14,129 to K15,841
(Kina) = A\$120 = NZ\$135 = P.O.R4.

Allowances: In addition an allowance of K1,300 (single), K2,300 (married), plus K100 per child, is payable annually. Conditions of appointment which will be for up to three years period, will also include furnished housing at nominal rental, weekly, leave pay with two sick days provided, pensioner contribution allowance, and a family allowance under the national secondary education overseas, and superannuation benefits. Study leave after ten semesters is also given to academic staff.

Applications, which should be completed in duplicate, should state age, family particulars, qualifications, previous employment and the names and addresses of three referees from whom confidential enquiries may be made, and should be directed to the Registrar, The Papua New Guinea University of Technology, PO Box 983, LAI Papania.

A signed copy of the application, should go to ACU Appointments, 36 Gordon Square, London WC1H 0PF. Applications close July 31, 1978.

Applications are invited for a vacant post of Lecturer in French. Applicants should possess good academic qualifications in French and be able to teach both the language and a fair range of French Literature.

Appointments, according to qualifications and experience, will be made on the salary scale R6,500 by R360 to R8,100 per annum, plus a pensionable allowance of 15.5 per cent of basic salary.

Applicants should submit a curriculum vitae stating their salary, research interests and publications (if any), the date to which duty could be assumed, and the names and addresses of three referees.

Further information should be obtained from the Registrar, Room 10, University of Cape Town, Private Bag, Rondebosch 7700, to whom applications must be submitted not later than August 31, 1978.

The University's policy is not to discriminate in the appointment of staff on the basis of students on the grounds of sex, race, religion or colour. Further information on the implementation of this policy is obtainable from the Registrar.

Applications are invited for the post of **SENIOR LECTURER IN PHYSICS** (Physics Department, University of Hull, U.K.). The successful candidate will be a doctorate or equivalent research experience in Physics of a closely related discipline such as electrical engineering, as well as teaching experience. The appointment will be for a full-time post in the teaching and development of undergraduate courses in pure and applied physics, and in related inter-disciplinary areas (e.g. soil science, Health Science, etc.) and will be concerned with research in such areas as: radiophysics, biocommunications, scientific instrumentation, renewable and alternative energy sources, environmental physics, etc. Opportunities for wider participation in the region through the project of the In-stitute of Natural Resources are available.

[illegible]

viewed annually and normally (for all tax) and provide children's education allowances and holidays with pay. In addition the University provides 15% gratuity superannuation contribution and appointment allowance, partly funded. Accommodation at a private house is provided free of charge. Salary, this is under review. Appointment will be for a contract period of three years and agreement. Detailed applications (three copies with curriculum vitae and names and addresses of referees) should be sent to the University of the South Pacific, c/o P.O. Box 1168, Suva, Fiji. Quoting post and reference number to reach him no later than 15th March 1991. If the applicant in the UK should send him copy to IUC, 4091 Tottenham Court Road, London W1P 0LP. Further information can be obtained from another address.

person in the Department of German, Trinity College, Dublin, for advertising on 1 October 1978.

Preference will be given to candidates with an interest in 19th and 20th century German literature.

Appointment will be made on the salary range £4,060 to £4,508 p.a.

Application forms and further particulars may be obtained from:

The Establishment Officer,
West Theatre,
Trinity College,
Dublin 2.

The closing date for receipt of applications will be 16th July, 1978.

Applications are invited for the above post in the Department of Economics, Trinity College, Dublin, for the academic year 1978-79.

Appointment will be made within the salary range £4,060 to £4,508 p.a.

Application forms and further particulars may be obtained from:

The Establishment Officer,
West Theatre,
Trinity College,
Dublin 2.

The closing date for receipt of applications will be 10th July, 1978.

applications are invited for the post of LECTURER/ASSISTANT LECTURER IN THE DEPARTMENT OF BIOLOGY. Duties to include teaching and supervision of students. Salary scale £5,678, or as soon as possible thereafter. Preference will be given to applicants with considerable experience in the areas of plant physiology, mineral physiology or biochemistry. For full details see the following Salary Series: Lecturer, £15,919.07-26,799 p.a. Assistant Lecturer, £8,515.48-14,974 p.a. Applications should be submitted in triplicate (three copies) giving full particulars of qualifications, experience, date of birth, marital status and names and addresses of referees. Applications should be sent to the Secretary, University of the West Indies, P.O. Box 64, Bridgetown, Barbados. Applications will only be considered on receipt of a recommendation from the Inter-University Council, 80-81 Tottenham Court Road, London W1P 0LP. The successful candidate will be notified from either address.

Prizes of £500, £250, £125 and £50 will be awarded in each of the two age groups—under 25 and under 19 as at the 1st September, 1978.

Closing date 30th November, 1978.

Presentation Ceremony March, 1979. Judges include: The Bishop of London, Lord Scarman, Tim Rice, T. R. F. Howard, Miss Helen Vidal and Norris McWhirter. The year's subject:

"Are limits on the power of democratically elected governments necessary to safeguard the freedom and responsibility of the individual."

For full details send a stamped and addressed envelope to The Secretary, The Russ McWhirter Foundation, 2 Lord North Street, London, SW1.

Mr James R. Campbell, senior lecturer in veterinary surgery in the University of Glasgow, has been appointed in the William Dick chair of veterinary surgery at the University of Nottingham. Mr Alan Pugh, senior lecturer in electronic engineering at the University of Nottingham, has been appointed in the Macleod chair of electrical engineering at the University of Hull from October 1, 1978.

Mr A. P. Dawid, lecturer in statistics in University College London, has been appointed to the chair of statistics at the department of mathematics at the City University from October 1, 1978.

Mr David G. Hooper, senior lecturer in general practice in the department of community health in the University of Nottingham, has been appointed to the chair of general practice at the University of Manchester. He will succeed Professor Brian Thompson in September 1978.

Mr Aloysius J. Smith, professor of community medicine at the University of Manchester, has been appointed to a newly established chair of epidemiology and social oncology at the same university from October 1, 1978.

Mr Philip John Holloway, reader in community dentistry at the University of Manchester, has been appointed to the chair of dental medicine in the department of children's dentistry and preventive dentistry from October 1, 1978.

A commemoration for Steve Biko, killed last July, Martin Luther King and all those who have surrendered their lives for the advance of racial harmony is being held on July 1 at Westminster Cathedral under the auspices of the Bloomsbury Society supported by the Commission for Racial Equality to mark the United Nations Year for Anti-Apartheid. It will be introduced by Mrs Judith Hart, MP, and the programme will involve Mr Helen Mirren and Diana Rigg. Admission free.

The annual conference of wardens and resident tutors in polytechnic halls of residence will be held from July 11-13 at Lancaster Polytechnic. Fee: £28. All inquiries to Dr R. Dawson, Conference Secretary, Lexford Tower Hall, Manchester Polytechnic, Lower Chatham Street, Manchester M17 6JA.

"International Education - Time to Take Stock," a meeting organized by the Council for Educational Work in Citizenship, will be held on July 17 at the House of Commons and will be opened by the Secretary of State for Education and Science, Mrs. Williams.

[illegible][illegible]

7.32* balance foundation course (under
Laudholm (S100, prog 1))

Sunday July 2

MSC 2

0.05 Introduction to engineering mechanical design for power (12.1), 12.2, 12.3, 12.4, 12.5, 12.6, 12.7, 12.8, 12.9, 12.10, 12.11, 12.12, 12.13, 12.14, 12.15, 12.16, 12.17, 12.18, 12.19, 12.20, 12.21, 12.22, 12.23, 12.24, 12.25, 12.26, 12.27, 12.28, 12.29, 12.30, 12.31, 12.32, 12.33, 12.34, 12.35, 12.36, 12.37, 12.38, 12.39, 12.40, 12.41, 12.42, 12.43, 12.44, 12.45, 12.46, 12.47, 12.48, 12.49, 12.50, 12.51, 12.52, 12.53, 12.54, 12.55, 12.56, 12.57, 12.58, 12.59, 12.60, 12.61, 12.62, 12.63, 12.64, 12.65, 12.66, 12.67, 12.68, 12.69, 12.70, 12.71, 12.72, 12.73, 12.74, 12.75, 12.76, 12.77, 12.78, 12.79, 12.80, 12.81, 12.82, 12.83, 12.84, 12.85, 12.86, 12.87, 12.88, 12.89, 12.90, 12.91, 12.92, 12.93, 12.94, 12.95, 12.96, 12.97, 12.98, 12.99, 13.00, 13.01, 13.02, 13.03, 13.04, 13.05, 13.06, 13.07, 13.08, 13.09, 13.10, 13.11, 13.12, 13.13, 13.14, 13.15, 13.16, 13.17, 13.18, 13.19, 13.20, 13.21, 13.22, 13.23, 13.24, 13.25, 13.26, 13.27, 13.28, 13.29, 13.30, 13.31, 13.32, 13.33, 13.34, 13.35, 13.36, 13.37, 13.38, 13.39, 13.40, 13.41, 13.42, 13.43, 13.44, 13.45, 13.46, 13.47, 13.48, 13.49, 13.50, 13.51, 13.52, 13.53, 13.54, 13.55, 13.56, 13.57, 13.58, 13.59, 13.60, 13.61, 13.62, 13.63, 13.64, 13.65, 13.66, 13.67, 13.68, 13.69, 13.70, 13.71, 13.72, 13.73, 13.74, 13.75, 13.76, 13.77, 13.78, 13.79, 13.80, 13.81, 13.82, 13.83, 13.84, 13.85, 13.86, 13.87, 13.88, 13.89, 13.90, 13.91, 13.92, 13.93, 13.94, 13.95, 13.96, 13.97, 13.98, 13.99, 14.00, 14.01, 14.02, 14.03, 14.04, 14.05, 14.06, 14.07, 14.08, 14.09, 14.10, 14.11, 14.12, 14.13, 14.14, 14.15, 14.16, 14.17, 14.18, 14.19, 14.20, 14.21, 14.22, 14.23, 14.24, 14.25, 14.26, 14.27, 14.28, 14.29, 14.30, 14.31, 14.32, 14.33, 14.34, 14.35, 14.36, 14.37, 14.38, 14.39, 14.40, 14.41, 14.42, 14.43, 14.44, 14.45, 14.46, 14.47, 14.48, 14.49, 14.50, 14.51, 14.52, 14.53, 14.54, 14.55, 14.56, 14.57, 14.58, 14.59, 14.60, 14.61, 14.62, 14.63, 14.64, 14.65, 14.66, 14.67, 14.68, 14.69, 14.70, 14.71, 14.72, 14.73, 14.74, 14.75, 14.76, 14.77, 14.78, 14.79, 14.80, 14.81, 14.82, 14.83, 14.84, 14.85, 14.86, 14.87, 14.88, 14.89, 14.90, 14.91, 14.92, 14.93, 14.94, 14.95, 14.96, 14.97, 14.98, 14.99, 15.00, 15.01, 15.02, 15.03, 15.04, 15.05, 15.06, 15.07, 15.08, 15.09, 15.10, 15.11, 15.12, 15.13, 15.14, 15.15, 15.16, 15.17, 15.18, 15.19, 15.20, 15.21, 15.22, 15.23, 15.24, 15.25, 15.26, 15.27, 15.28, 15.29, 15.30, 15.31, 15.32, 15.33, 15.34, 15.35, 15.36, 15.37, 15.38, 15.39, 15.40, 15.41, 15.42, 15.43, 15.44, 15.45, 15.46, 15.47, 15.48, 15.49, 15.50, 15.51, 15.52, 15.53, 15.54, 15.55, 15.56, 15.57, 15.58, 15.59, 15.60, 15.61, 15.62, 15.63, 15.64, 15.65, 15.66, 15.67, 15.68, 15.69, 15.70, 15.71, 15.72, 15.73, 15.74, 15.75, 15.76, 15.77, 15.78, 15.79, 15.80, 15.81, 15.82, 15.83, 15.84, 15.85, 15.86, 15.87, 15.88, 15.89, 15.90, 15.91, 15.92, 15.93, 15.94, 15.95, 15.96, 15.97, 15.98, 15.99, 16.00, 16.01, 16.02, 16.03, 16.04, 16.05, 16.06, 16.07, 16.08, 16.09, 16.10, 16.11, 16.12, 16.13, 16.14, 16.15, 16.16, 16.17, 16.18, 16.19, 16.20, 16.21, 16.22, 16.23, 16.24, 16.25, 16.26, 16.27, 16.28, 16.29, 16.30, 16.31, 16.32, 16.33, 16.34, 16.35, 16.36, 16.37, 16.38, 16.39, 16.40, 16.41, 16.42, 16.43, 16.44, 16.45, 16.46, 16.47, 16.48, 16.49, 16.50, 16.51, 16.52, 16.53, 16.54, 16.55, 16.56, 16.57, 16.58, 16.59, 16.60, 16.61, 16.62, 16.63, 16.64, 16.65, 16.66, 16.67, 16.68, 16.69, 16.70, 16.71, 16.72, 16.73, 16.74, 16.75, 16.76, 16.77, 16.78, 16.79, 16.80, 16.81, 16.82, 16.83, 16.84, 16.85, 16.86, 16.87, 16.88, 16.89, 16.90, 16.91, 16.92, 16.93, 16.94, 16.95, 16.96, 16.97, 16.98, 16.99, 17.00, 17.01, 17.02, 17.03, 17.04, 17.05, 17.06, 17.07, 17.08, 17.09, 17.10, 17.11, 17.12, 17.13, 17.14, 17.15, 17.16, 17.17, 17.18, 17.19, 17.20, 17.21, 17.22, 17.23, 17.24, 17.25, 17.26, 17.27, 17.28, 17.29, 17.30, 17.31, 17.32, 17.33, 17.34, 17.35, 17.36, 17.37, 17.38, 17.39, 17.40, 17.41, 17.42, 17.43, 17.44, 17.45, 17.46, 17.47, 17.48, 17.49, 17.50, 17.51, 17.52, 17.53, 17.54, 17.55, 17.56, 17.57, 17.58, 17.59, 17.60, 17.61, 17.62, 17.63, 17.64, 17.65, 17.66, 17.67, 17.68, 17.69, 17.70, 17.71, 17.72, 17.73, 17.74, 17.75, 17.76, 17.77, 17.78, 17.79, 17.80, 17.81,

11.00*	The development of instruments and their music: string quartets—style and feature (A35); prog. V.
11.25	Arts foundation course: Africa

Wednesday July 5

RADIO 3 (VHF)
Alternative broadcasts for North Scottish and Welsh transmitters

23.00 - Direct production system - 1964 film

00.20 - Air and environment - Words & Music

00.30 - Film introduction - 1964 film - The Programming (S.201) - per 10.

Thursday July 6

RADIO 3 (VHF)
Alternative broadcasts for North Scottish and

10-10-68

Friday July 7

RADIO 3 (VHF)

**Alternative broadcasts for North Sea
Welsh transmitters**

24.00 The Atlantic - June the 10th
"Atlantic and Lorne" 10.00

00.20 Historical data and
"Scholar's" History and
"C.O. - prog 6" 10.00

00.10 "The Lorne" - C.O.

Age Group	1950 (%)	1960 (%)	1970 (%)	1980 (%)	1990 (%)
0-14	15	15	15	15	15
15-24	10	10	10	10	10
25-34	15	15	15	15	15
35-44	15	15	15	15	15
45-54	15	15	15	15	15
55-64	10	10	10	10	10
65+	10	10	10	10	10
Total	65	65	65	70	75
Male	60	60	60	65	70
Female	70	70	70	75	80

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University, External BA degree, provides
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London University Diploma and
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W.M. Milligan MBE, TD, MA,
Head of Walsley Hall,
OXFORD OX2 6JL.
Telephone (0865) 54231
(a telephone after 4.45 p.m.)

Walsley Hall OXFORD

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19.05-19.30: Philosophy and Learning: Sociological
approach (1910); print 10.

19.30-20.00: Social psychology: Analyzing Inter-
group relations (1930); print 01.

RADIO 4 (VHF)

9.10-10.00: Fundamentals of human geography
Regional policy in the Nordic
area (1970); print 14.

9.30-10.00: The sociological perspective: The
sociological approach to international relations (1970)
print 01.

10.00-10.30: Economic theory and economic structure:
Economic structure in quantitative statistics
(1970); print 14.

10.10-10.40: Partial differential equations: On
the growth of mathematical modelling in the
case study (1970); print 01.

Monday July 3

RADIO 3 (VHF)

24.00-24.30: Alternative means for North Scottish and
Welsh transmitters

24.00-24.30: Alternative means for North Scottish and
Welsh transmitters

00.20-00.50: The role of revolutions: Heavy and
lightweight (1970); print 14.

00.40-01.10: People and crime: Crime (1955)
print 01.

Tuesday July 4

RADIO 3 (VHF)

24.00-24.30: Alternative means for North Scottish and
Welsh transmitters

24.00-24.30: Alternative means for North Scottish and
Welsh transmitters

00.20-00.50: The role of revolutions: Heavy and
lightweight (1970); print 14.

00.40-01.10: People and crime: Crime (1955)
print 01.

Ross M

Men

Essay C

Prizes of £500, £250, £125 and two age groups—under 25 and over 25—October, 1978.

Closing date 30th November, 1978.

Presentation Ceremony March 1979, at the Bishop of London, Lord Howarth, Miss Helen Vidler.

Year's subject:

"Are limits on the power of the individual necessary to safeguard the individual."

For full details send a stamp to The Secretary, The Ross M, North Street, London, SW1.

McWhirter Memorial Competition

NEW ZEALAND
MASSEY UNIVERSITY
Palmerston North
DEPARTMENT OF BUSINESS
STUDIES

100

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Universities continued

NEWCASTLE UPON TYNE
THE UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

WARWICK
THE UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

Fellowships and Studentships

APPLIED RESEARCH
Collaborative Training Awards

A new scheme by the Science Research Council to help practical projects in industrial firms to experienced research workers has been announced. Three awards have been allocated to CIT. These awards will be made to firms which are engaged in research and development work. The awards are for the following projects:

1. Purcell conversion of high temperature materials with the School of Materials Engineering.
2. Computerized stock management and work scheduling with the School of Production Studies.
3. Application of computerized design to kinematic analysis with the School of Mechanical Engineering.

North Staffordshire Polytechnic
Research Studentship

SRC CASE award commencing October 1, 1978. Applications are invited for a research studentship to work on a project in the field of mechanical engineering. The project is in the field of mechanical engineering. The successful candidate will be expected to undertake research in the field of mechanical engineering. The studentship is for two years, commencing in 1978. The research project is in the field of mechanical engineering. The successful candidate will be expected to undertake research in the field of mechanical engineering.

BIRMINGHAM
THE UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

LEEDS
THE UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

NEWCASTLE UPON TYNE POLYTECHNIC
Department of Behavioural Studies
SSRC Research-linked studentship in Industrial Relations (Quota award)

Applications are invited from graduates for a postgraduate research studentship in the Department of Behavioural Studies. The studentship is for two years, commencing in 1979. The research project is in the field of industrial relations. The successful candidate will be expected to undertake research in the field of industrial relations. The studentship is for two years, commencing in 1979. The research project is in the field of industrial relations. The successful candidate will be expected to undertake research in the field of industrial relations.

THE UNIVERSITY OF LEEDS
S.R.C. Research Studentship in Physics

The S.R.C. is prepared this year to offer to a suitable qualified candidate a research studentship in the Department of Physics. Applications are invited from graduates for a postgraduate research studentship in the Department of Physics. The studentship is for two years, commencing in 1979. The research project is in the field of physics. The successful candidate will be expected to undertake research in the field of physics.

UNIVERSITY OF ADELAIDE
Applications are invited for the following appointment:

SENIOR RESEARCH FELLOW ON RESEARCH FELLOW IN THE WATTS AGRICULTURAL RESEARCH INSTITUTE under a grant from J. S. Davies Bequest. The successful candidate will be expected to undertake research in the field of agricultural research. The appointment is for two years, commencing in 1979. The research project is in the field of agricultural research. The successful candidate will be expected to undertake research in the field of agricultural research.

SALARY SCALES: Senior Research Fellow: either £24,598 p.a. or within the scale £20,125-£23,432 according to qualifications and experience. Research Fellow: within the scale £14,984-£19,844 p.a. with contributory superannuation and pension schemes. Applications in duplicate, giving particulars of age and marital status, details of academic record and experience, and the names and addresses of two referees, should be sent to the Registrar of the University at G.P.O. Box 458, Adelaide, South Australia.

Further information available from the Association of Commonwealth Universities (Acus), 36 Gordon Square, London, WC1H 9DF.

BRIGHTON
POLYTECHNIC
Department of Mechanical and Production Engineering

SRC Short Duration Collaborative Training Award
SRC Research Studentship
To investigate methods of waste heat recovery. The work will be carried out in close collaboration with the Brighton Polytechnic. The successful candidate will be expected to undertake research in the field of waste heat recovery. The studentship is for two years, commencing in 1979. The research project is in the field of waste heat recovery. The successful candidate will be expected to undertake research in the field of waste heat recovery.

CAMBRIDGE
UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

CAMBRIDGE
UNIVERSITY
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

Polytechnics

ULSTER COLLEGE
The Northern Ireland Polytechnic

LECTURER II/SENIOR LECTURER GOVERNMENT AND POLITICS OF MODERN FRANCE
This post will be in the School of Philosophy, Politics and History. Candidates are required to have a good honours degree and postgraduate experience with particular emphasis on the politics and government of modern France. Applications in duplicate, giving particulars of age and marital status, details of academic record and experience, and the names and addresses of two referees, should be sent to the Registrar of the University at G.P.O. Box 458, Adelaide, South Australia.

THE UNIVERSITY OF ADELAIDE
DEPARTMENT OF PHYSICS
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics. The fellowship is for two years, commencing in 1979. The research project is in the field of plasma physics. The successful candidate will be expected to undertake research in the field of plasma physics.

LEEDS
POLYTECHNIC
School of Management and Business Studies

PRINCIPAL LECTURER IN PERSONNEL MANAGEMENT
A vacancy exists for a person with suitable professional and/or academic qualifications, and with recent experience in the field of Personnel Management, to teach at undergraduate, postgraduate and post-experience levels, and to make a more general contribution within the Industrial Relations and applied behavioural studies area.

LECTURER II IN MANAGEMENT STUDIES/INDUSTRIAL RELATIONS/PERSONNEL MANAGEMENT
The School has a vacancy for a person with suitable academic and professional qualifications and recent industrial/commercial experience, to teach on a range of courses at a variety of levels. Preference will be given to applicants who have a background of either Industrial Relations or Personnel Management experience, and who have also had experience of teaching within the Further Education Sector.

Closing date July 19, 1978. Please enclose a.s.e.

Polytechnics continued

Leeds
POLYTECHNIC
School of Management and Business Studies
LECTURER IN ECONOMICS (PART-TIME)

Able to teach on a range of courses at undergraduate and postgraduate levels. A teaching programme is envisaged of up to 15 hours a week for 30 weeks commencing in September, 1978. Applications from: The Head of School of Management and Business Studies, Leeds Polytechnic, 5 Queen Square, Leeds LS2 9AF. Tel. 0532 39726.

School of Mathematics and Computing
PART-TIME LECTURING POSTS

Applicants should be suitably qualified in Mathematics, Statistics, Operational Research or Computing. Teaching hours are negotiable, ranging from the equivalent of full-time teaching to a lower commitment allowing time to pursue research or other relevant interests. Application forms from: The Head of School of Mathematics and Computing, Leeds Polytechnic, 5 Queen Square, Leeds LS2 9AF. Tel. 0532 462961. Please enclose a.s.e.

Department of Creative Arts
Division of Physical Education
Temporary Appointment
LECTURER II IN PHYSICAL EDUCATION

The person appointed would be largely responsible for courses in recreation throughout the Polytechnic, and work in close cooperation with the Officers of the Student Union under the direction of the Head of Department. The appointment will be from September 1, 1978, or as soon as possible thereafter. He/she would have opportunity to share in the teaching of these course areas appropriate to qualifications and experience. Salary: £4,101 to £6,558. Further details and form of application from the Assistant Director and Chief Administrative Officer, Trent Polytechnic, Burton Street, Nottingham NG1 4BU. Closing date July 10, 1978.

TRENT
POLYTECHNIC
NOTTINGHAM

Senior Finance Officer AP4/5

required for a senior position in the Unit dealing with all financial aspects of the Polytechnic. The successful candidate will be concerned with provision of management information and the examination of systems. Arranging the implementation of financial procedures acceptable to the Council of the Polytechnic and guiding Faculty Staff who are responsible for the day-to-day financial management of the Polytechnic. Formal qualifications are desirable but those with a good practical knowledge of finance who have had a similar post in a similar area may be suitable. Salary: £24,161 to £24,900, inclusive (under review). Further details and application forms are available from the Personnel Office, North East London Polytechnic, Romford Road, London E15 4LZ (Telephone 01-558 8811; extension 32). Closing date: July 10, 1978.

NELP North East London Polytechnic

Academic Personnel Office:
Walham Forest Precinct

Deputy Academic Personnel Officer

Salary £24,630 to £28,350, inclusive (under review). Applications are invited for this newly established post from candidates with experience in the personnel field, preferably in the education sector. Graduate or relevant professional qualification desirable. Further details and application forms are available from the Personnel Office, North East London Polytechnic, Romford Road, London E15 4LZ (Telephone 01-558 8811; extension 32). Closing date: July 10, 1978.

NELP North East London Polytechnic

ABERDEEN
ROBERT GORDON'S
INSTITUTE OF
TECHNOLOGY
SCOTT SUTHERLAND SCHOOL
OF ARCHITECTURE
LECTURER IN URBAN DESIGN

To take charge of the Postgraduate Diploma course in Urban Design and to assist in the BSc Honours Course in Architecture course. Qualifications required in Architecture and/or Planning. Experience in Housing, Central Area Developments, New Towns or Conservation is essential and preferably with interest in one or more of Social and Environmental Science, Simulation (Games), Modelling, TV Design Aid, Participating Techniques, Design Briefing. Salary scale £4,056 to £7,698 per annum. Assistance with removal expenses. Details from Chief Administrative Officer, Robert Gordon's Institute of Technology, Schoolhill, Aberdeen, AB9 1PR (0224-574511).

PRESTON POLYTECHNIC
Faculty of Business and Management

PRINCIPAL LECTURER
Applications are invited from persons with high academic and/or professional qualifications in Accounting and related disciplines to develop the subject of Public Sector Accounting.

SCHOOL OF LAW
SENIOR LECTURER/LECTURER II

Preference will be given to applicants offering Commercial/Company Law. **SCHOOL OF MANAGEMENT STUDIES**
TEMPORARY LECTURER II
Applicants must be able to offer Personal Management and/or preferably be able to assist with the teaching of Industrial Relations. The appointment will be for one year. Salary scales: Principal Lecturer, £7,047-£7,818-£8,544. Senior Lecturer, £6,051-£7,065-£7,572. Applications from: The Head of School of Management Studies, Preston Polytechnic, Corporation Street, Preston PR1 2TG. To whom completed applications should be returned by 14th July, 1978.

CITY OF BIRMINGHAM
THE POLYTECHNIC
POLYTECHNIC SALARY

LANCHESTER
THE POLYTECHNIC
Director: G. V. Hargrave
Dean of Studies: D. Broadhurst
Applications are invited for the following post:
CARLES ADRIAN
A Career Advisor is required to assist in the recruitment of students to the Polytechnic. The successful candidate will be a graduate with a good honours degree in a relevant subject, preferably in the field of social sciences, and with experience in the field of career guidance. The successful candidate will be expected to undertake research in the field of career guidance. The appointment is for two years, commencing in 1979. The research project is in the field of career guidance. The successful candidate will be expected to undertake research in the field of career guidance.

LIVERPOOL
THE POLYTECHNIC
DEPARTMENT OF BIOLOGY

LECTURER II IN PHYSIOLOGY
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology.

NELP North East London Polytechnic

Leeds
Polytechnic

LECTURER II IN PHYSICAL EDUCATION AND HUMAN MOVEMENT STUDIES (TEMPORARY)
Applicants must have a good honours degree in Physical Education or a related subject. The successful candidate will be expected to undertake research in the field of physical education. The appointment is for two years, commencing in 1979. The research project is in the field of physical education. The successful candidate will be expected to undertake research in the field of physical education.

LONDON
CITY OF LONDON
MANAGEMENT SCIENCE UNIT

TECHNICIAN (ANIMAL PHYSIOLOGY)
Salary scale: £2,978.85 to £5,323.28 (inclusive). Applications from: The Head of School of Management Studies, Preston Polytechnic, Corporation Street, Preston PR1 2TG. To whom completed applications should be returned by 14th July, 1978.

LONDON
HARVEY POLYTECHNIC
SCHOOL OF ELECTRICAL ENGINEERING

LECTURER II IN PHYSICAL EDUCATION
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physical Education. The fellowship is for two years, commencing in 1979. The research project is in the field of physical education. The successful candidate will be expected to undertake research in the field of physical education. The fellowship is for two years, commencing in 1979. The research project is in the field of physical education. The successful candidate will be expected to undertake research in the field of physical education.

PLYMOUTH
POLYTECHNIC
School of Mathematical Sciences

READER IN RHEOLOGY
Salary Scale: £7,047-£8,544. Applications are invited from graduates for a postgraduate research fellowship in the Department of Rheology. The fellowship is for two years, commencing in 1979. The research project is in the field of rheology. The successful candidate will be expected to undertake research in the field of rheology.

SUNDERLAND
THE POLYTECHNIC
FACULTY OF HUMANITIES

LECTURER II IN PHYSIOLOGY
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology.

WOLVERHAMPTON
THE POLYTECHNIC

LECTURER II IN PHYSIOLOGY
Applications are invited from graduates for a postgraduate research fellowship in the Department of Physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology. The fellowship is for two years, commencing in 1979. The research project is in the field of physiology. The successful candidate will be expected to undertake research in the field of physiology.

NELP North East London Polytechnic

Overseas

OVERSEAS
TEACHING POSTSADVISER IN THE TEACHING OF ENGLISH FOR
SCIENCE AND TECHNOLOGY
(INDIA)

The Indian School of Mines, Dhanbad, MA in Applied Linguistics or comparable qualification in TEFL and considerable experience in syllabus design and materials production for ESP.

Salary: £5,681-£7,707 p.a. + 10% inducement allowance.

Benefits: Free accommodation; overseas allowances. 2 year KELL contract. 78 PO 140

LECTURERS IN ENGLISH
(SINGAPORE)

Institute of Education, 15 lecturers to teach Certificate and Diploma of Education courses in Department of English Studies.

A Degree plus MA in English or Education, teaching qualification plus 3 years' school teaching or specialist experience required.

Post-graduate qualification in TESL/TEFL or Linguistics and teacher training experience desirable.

Salary: \$1,705-\$2,420 p.m. (Rate of exchange approximately \$4.30 = £1).

Benefits: 2 or 3 year contract. Housing allowance; displacement allowance; gratuity on completion of contract. 78 PO 141-155

SENIOR LECTURER IN ENGLISH
(MALAWI)

Department of English, University of Malawi, Zomba. To teach English to university students, especially those training to become teachers, and to supervise postgraduate students and the language laboratory.

First degree in English or Modern Languages and an MA in English Language or Applied Linguistics. Substantial experience of teacher training for secondary schools and ability to use a language laboratory essential. Experience in examinations work, CCTV and ESP desirable.

Salary: £5,681-£7,707 plus 10% inducement.

Benefits: Personal and children's allowances; free furnished accommodation; 2 year KELL contract. 77 TU 142

LECTURER IN ENGLISH
(ZAMBIA)

United Nations Institute for Namibia, Lusaka. To teach English and assist in production and evaluation of ESP materials, to set and mark internal examinations.

Degree, 1 year postgraduate university qualification in Applied Linguistics/TEFL plus at least 3 years' experience in ESP, preferably overseas at tertiary level required. Qualification in Mathematics or interest in language of Mathematics desirable.

Salary: £5,000-£6,129 p.a. + 10% inducement.

Benefits: Overseas and children's allowances; free furnished accommodation; 2 year KELL contract. 78 HO 11

LECTOR IN ENGLISH FOR SPECIAL PURPOSES
(YUGOSLAVIA)

University of Ljubljana. To teach technical English to university students of science and technology. Degree and TEFL qualification essential. postgraduate qualification in Linguistics desirable. The candidate should have an interest in, or experience of, materials production or ESP. Substantial experience of TEFL overseas essential and recording experience would be an advantage. Preferred age 30-40.

Salary: 6,000-7,000 new dinars per month (present rate of exchange £ND 35). This salary is non-convertible. Additionally, an annual subsidy of £1,244 paid by the British Council in the UK.

Benefits: Free medical service; employer's portion of approved superannuation scheme; 1 year contract, renewable. 77 RU 149

DIRECTOR OF STUDIES
(SRI LANKA)

English Teachers' College, Ministry of Education. To set up courses for improving the English of practising teachers.

Degree plus 1 year postgraduate qualification in TEFL/Applied Linguistics and 5 years' experience of English language teaching to overseas adults. Experience in teacher training and in the preparation of spoken English courses is desirable, as is an interest in knowledge of Drama and Music.

Salary: £5,681-£7,707 plus 10% inducement allowance.

Benefits: Overseas and children's allowances; accommodation allowance; 2 year KELL contract. 78 PT 6

LECTURER IN ELECTRICAL ENGINEERING
(COLOMBIA)

University of The Andes, Bogotá. To lecture to degree level students, supervise research projects, assist with the design of equipment for rural electrification. Qualifications: BSc and experience of electrical machines essential, also knowledge of or willingness to learn Spanish. Higher degree in Electrical Engineering and experience in electrical machine design desirable.

Salary: £5,681-£7,707 p.a.

Benefits: Free accommodation; medical scheme; overseas allowances; employer's portion of UK superannuation, 2 year Formula contract, renewable. 78 PU 88

HEAD OF TEACHER TRAINING DEPARTMENT
(BRAZIL)

Sociedade Brasileira de Cultura Inglesa. Required for August/September 1978.

Qualifications: Postgraduate degree/diploma in Applied Linguistics or TEFL; 5 years' experience of teacher training and teaching in an overseas context required.

Salary: Cr\$20,000-Cr\$24,000 per month (current rate of exchange Cr\$27 = £1).

Benefits: annual bonus, currently £600; installation grant £110; employer's portion of superannuation contribution; medical scheme; 2 year contract, renewable. 78 PO 13

Return fares are paid. Local contracts are guaranteed by the British Council. Please write briefly stating qualifications and length of appropriate experience, quoting relevant reference number and title of post, for further details and application form to The British Council (Appointments), 65 Davies Street, London W1V 2AA.

THE BRITISH
COUNCILThe British Council
ENGLISH FOR MEDICINE
SCIENCE AND TECHNOLOGY
King Abdul Aziz University, Jeddah,
Saudi Arabia

The English Language Centre of the University of Jeddah, to train students in English-medium subjects, mainly for the College of Engineering and Technology (course details available on request). The ELC is fully established with its own graphic, photographic, graphic, television and sound studios and two laboratories. Experience for 1978/1979 has created a need for lecturers with experience in the following subjects:

MATHEMATICS PHYSICS GEOLOGY
ENVIRONMENTAL DESIGN

(note: one of these should be eligible to teach in the Applications should be graduates in a relevant subject, a lively interest in the linguistic problems of the ELC. The following non-teaching staff are also required:

One Administrative Officer (male, to be appointed as Senior Lecturer in English) who will take responsibility for such matters as staff housing and documentation, fees, the local purchasing account and the day-to-day non-academic running of the Language Centre. Knowledge of Arabic and relevant experience is desirable.

One Television Scriptwriter/Producer (male, to be appointed as Senior Lecturer in English). Relevant experience in ESP or EST essential.

One Electrical Engineer (to be appointed as Lecturer) to help service the language laboratories.

Two Reprographics Specialists (to be appointed as Tutor level) to run the expanding Reprographics Section (Rotaprint title press, PPC, etc).

Salary scales, dependent on family circumstances, following monthly scales may be taken as a guide:

Lecturers: Single: SR1,800 to 4,485; Married: SR2,400 to 5,681. Senior Lecturers: Single: SR4,485 to 4,839; Married: SR5,681 to 6,129. Two children over 16 years old at post: SR6,834 to 7,279. (Current rate of exchange SR45 = £1).

At the end of the first year's service staff are eligible for promotion to higher grades (e.g. Senior Lecturer, Senior Head of Course, Senior Manager). Free furnished accommodation is provided. Recruits are provided at the beginning and end of each contract for the staff member and up to three members of family.

The contract, which is for one year and is renewable, is guaranteed by the British Council. Please write stating qualifications and length of appropriate experience, quoting relevant reference number, for further details and application form to The British Council (Appointments), 65 Davies Street, London W1V 2AA.

Presbyterian Ladies' College
Armidale, NSW, Australia

Principal

With the retirement of Mrs. F. Morris-Vos at the end of January 1978, the Council invites applications for the position of Principal from suitably qualified persons.

The College has an enrolment of 273 girls of whom 180 are boarders. Modern buildings are located in grounds in Armidale, New South Wales, a Cathedral town with a population of 21,000 and outstanding educational facilities: the University of New England, a College of Advanced Education, a Technical College, two Government and four non-government high schools.

Information about the position and the College can be obtained from the Secretary, PLC Armidale, Armidale, New South Wales 2350, Australia, or from Agent General, New South Wales House, 68 The Strand, London WC2N 5LZ.

Applications will close in Armidale, with the Secretary, PLC Armidale, on August 18th, 1978.

The PLC Council Chairman, Professor G. G. Moore, will be visiting the United Kingdom in August and where appropriate, after appropriate arrangements have been made, will be pleased to meet applicants.

Classified
Advertisements

To advertise in The THES
phone
Lorraine Williams 01-837 1234

Ext. 575

THE TIMES
Higher Education
SUPPLEMENT

New Printing House Square, P.O. Box 7
Gray's Inn Road, London WC1V 6EZ

General Vacancies

Education and
Training Officer

Data Processing

Due to internal promotion we require an Education and Training Officer for our Management Services Department based in Nottingham, where we are increasing our EDP capacity from an IBM 370/168 and 370/145 to two 370/158's. Currently over 100 programming staff work on a wide variety of applications from production scheduling to massive merchandise accounting routines. We have a substantial new graduate intake annually and devote major resources to staff development.

The Training Officer has a comprehensive responsibility for maintaining and improving the standard of programming and systems analysis at all levels. This includes using external courses when appropriate and running internal training schemes which involve the use of video assisted instruction as well as personal instruction. The job holder occupies a tutor role for many of the younger people in the Department.

Candidates (men and women) should, therefore, have considerable practical programming experience, preferably using IBM Cobol and Assembler, plus some experience of training or teaching and have well-developed communication skills.

Salary is likely to be in the region of £4,500-£5,500 plus a profit related bonus and staff discount facilities.

Please write for an application form to:

Mrs. G. K. Greenwood, Employment Officer,

The Boots Company Limited,
Head Office, Nottingham, NG2 3AA.

BBC
EDUCATIONAL
BROADCASTING COUNCILS

Applications are invited for the following posts in London:

EDUCATIONAL LIAISON

A new post of Senior Assistant has been created. The successful candidate will provide liaison between the BBC and educational institutions and will be responsible for the production of educational programmes. The post holder will be responsible for the production of educational programmes and will be responsible for the production of educational programmes.

INFORMATION, SCHOOLS

The Senior Assistant will be responsible for the production of educational programmes and will be responsible for the production of educational programmes.

RESEARCHER

Responsible for running national postal survey of schools and colleges, designed to assess the size, characteristics and educational needs of the school and college sector. The post holder will be responsible for the production of educational programmes and will be responsible for the production of educational programmes.

For further details and application form contact the Personnel Department, National Hospitals for Nervous Diseases, Queen Square, London WC1N 3BG. Tel: 01-837 3611 Ext. 85.

Closing date for applications 7th August, 1978.

Advertisements are accepted on the conditions of the Times Newspaper Ltd, copy requests are available.

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PART-TIME LECTURERS IN LAW

Lecturers/Tutors are required for 1978/1979 to teach full-time and part-time University of London External LLB students.

We are looking for persons who are: Professionally qualified or who have a degree in Law. Enthusiastic to teach on an intensive course. Available on Saturdays and for a few hours on other days by arrangement. Available throughout the academic year.

We give: The opportunity of teaching really keen students. Excellent remuneration. Please write or phone for an application form to: D. Bontle, T.D.B.A., Registrar, Chart University Tutors Ltd., Modern Court, Fleet Lane, London EC4A 4EE. Tel: 01-248 3383

WELLCOME INSTITUTE FOR
THE HISTORY OF MEDICINE

Applications are invited for two full-time permanent posts in a newly-formed Centre for the History of Contemporary Medical Practice.

The function of the Centre's staff will be to seek out, collect and catalogue the personal papers and professional records of twentieth-century medical practitioners.

Candidates should be graduates, either of history or the social sciences. They should be socially mature and interested in meeting people. An ability to type and possession of a current driving licence would be advantageous. Both posts are subject to a 12-month probationary period.

Starting salaries will be at a point on the University Lecturers' Scale, including London Allowance £14,110 to £17,581.

Applications should be sent by July 21, 1978, to The Secretary, The Wellcome Institute for the History of Medicine, 111 Euston Road, London NW1 2BU.

Overseas continued

TASMANIAN COLLEGE
OF ADVANCED EDUCATIONHEAD
of the Division of
Business Studies

Salary: \$31,895, \$43,010, \$43,218 p.a.

Location: Launceston

The Division offers a range of courses in Business and Adult Studies with major emphasis on accounting. Several of these courses are offered to students throughout the State through the Colleges of Advanced Education. The Division's activities are closely associated with the Schools of Social Work and Education. Although the main centre of activity is at the Tasmanian Campus at Launceston, some teaching is also carried out at the Mt. Nelson Campus in Hobart.

The applicant is likely to have a tertiary qualification in Commerce or related fields, experience in industry and experience in a tertiary institution.

Further information: Dr. David Smith, Telephone 0081 261244 or write to P.O. Box 1214, Launceston

Applications to: The Personnel Officer, P.O. Box 1214, Launceston, Tasmania 7250 By July 17, 1978

General Vacancies

THE NATIONAL HOSPITALS COLLEGE OF
SPEECH SCIENCES
Portland Place, London W.1.

require a

LOCUM LECTURER IN PSYCHOLOGY

(1st October, 1978-31st May, 1979)

Applications are invited from lecturers clinical or educational psychologists for the above post. The successful candidate will prepare students for the present three year Diploma of the College of Speech Therapists, help co-ordinate the work of visiting lecturers in psychology, and in selection procedures and be expected to take an interest in the clinical aspects of the course.

Salary in accordance with Whitely Council Senior Scale. For further details and application form contact the Personnel Department, National Hospitals for Nervous Diseases, Queen Square, London WC1N 3BG. Tel: 01-837 3611 Ext. 85.

Closing date for applications 7th August, 1978.

Colleges of Further
Education continued

LONDON

CHART UNIVERSITY OF ART
INSTITUTION LONDON
EDUCATION
DEPARTMENT OF DESIGN

CHART UNIVERSITY OF ART INSTITUTION LONDON is seeking lecturers in the Department of Design. The Department of Design is situated at the University of London, 100 Brook Street, London W1V 2AA.

Applications should be sent to the Department of Design, 100 Brook Street, London W1V 2AA. Tel: 01-248 3383

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sults,

rejoice in the knowledge that the appointments were free of that taint of incompetence which oppresses those same departments today.

Yours faithfully,
DAVID MALCOLME-LAWES.
Lecturer in chemistry,
Loughborough University of
Technology.